SI-MNH-958b Rev. 4-9-64

SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B

Position at sunrise = 07/9 159-39w 20-27.5wTime at sunrise =

Position at sunset Time at sunset

Miles traveled from 0000 hours to sunrise = 75 m; (13)

Miles traveled from sunrise to sunset = 12 (12 m; (118))

Miles traveled from sunrise to sunset

Miles traveled from sunset to 2400 hours

	TIME OF FIX	TYPE OF FIX	LONGITUDE I	ATITUDE
1.	0644	CIRLASTIAL		20-23.52
2.	1030	CERAN		w 30 - 45 N
3.	1145	LORAH	159-0/w	50-47.8 N
		LORAN	158 -25 W	Je - 58'N
5.				
6.				

DATE

Position at sunrise Time at sunrise =

Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset

Miles traveled from sunset to 2400 hours

LONGITUDE LATITUDE TIME OF FIX TYPE OF FIX

l.

2.

3.

4.

5.

SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B DATE Position at sunrise = Time at sunrise = 1808 30-419~ 158-41 W Position at sunset Time at sunset Miles traveled from 0000 hours to sunrise = Miles traveled from sunrise to sunset = 65 m(64) Miles traveled from sunset to 2400 hours LATITUDE LONGITUDE TIME OF FIX TYPE OF FIX VISURIA 21° 06N 150 00 150 w 20° 59% 158 10 W LORDA 1310 W 3. 5.

6.
DATE JAN 5 1965

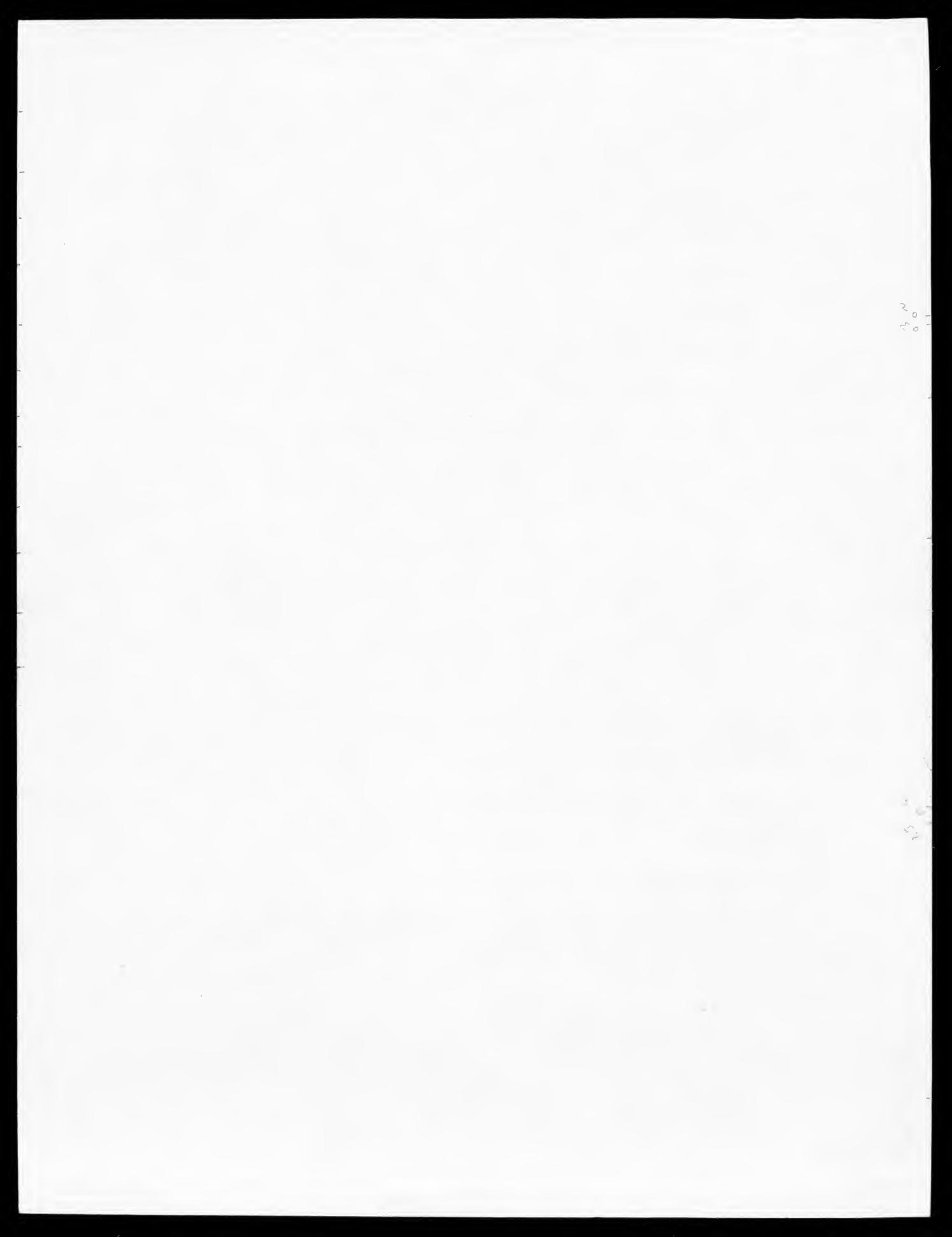
Time at sunset = Position at sunset = 1825

Miles traveled from 0000 hours to sunrise = 35 (54) 19 34.54

Miles traveled from sunrise to sunset = 88

Miles traveled from sunset to 2400 hours = 44 (43)

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1. 0/18 w	Lodisi	160 01 80	20°28'N
2. 0900	11	160' =7 W	20004/1
3.		16115	19 55
4.	1.1		19 2/3 N
5. / s / l w	1		19 36 N
6.		162 010	



SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B

Position at sunrise = 0729 18'47.5' 163' 50' W Time at sunrise =

1742 18°12 2 165°28 = Position at sunset = Time at sunset

Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset

(63) Miles traveled from sunset to 2400 hours =

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1	. 820	LORAN	163-56 0	18:43 N
	. 1130	LORAN	164-340	18-32 ~
3	. 1815	(LORAN)	16= = = = ,3	18-1-6
)+	. 5350	Las re is al	166-17 w	17 hay 8 ml
5	0			

6. DATE

= 0642 167-31W 17-22 N Position at sunrise Time at sunrise =

1800 169-07 12-160 Time at sunset Position at sunset

72 mi Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset

Miles traveled from sunset to 2400 hours = 52 (54)

	TIME OF FIX	TYPE OF FIX	LONGITUDE LA	TITUDE
1.	0620		167 29 (1)	17-23 N
2.	05 0	Leman	167-49 W	17-16
3。	1130	LORAN	168-04.5u	17-07.51
4.	1913	PALLER & VILLER	169-18 0	
5.				/

SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B

DATE 8 Jan 1965

Time at sunrise = Position at sunrise = 0.44 15.05 N 168.56 W Time at sunset = Position at sunset = 180 13.35 N 169.37 W

Miles traveled from 0000 hours to sunrise = 52 mi (56)

Miles traveled from sunrise to sunset = 119 m (112)

Miles traveled from sunset to 2400 hours =

	TIME OF FIX	TYPE OF FIX	LONGLTUDE	LATTTUDE
1.	0615	CREGGIA La	168 - 55 1	N 15-08N
	1-200	LANO		14-18.5 N
3.	1840	Louisin ? Palasia	169-46W	13-261
1.				

4.

5.

_

6.

DATE 9 1965

Time at sunrise = Position at sunrise = 0646 17/-19 12

Time at sunset = Position at sunset = 171-18 171-18

Miles traveled from 0000 hours to sunrise = (54)

Miles traveled from sunrise to sunset = 191

Miles traveled from sunset to 2400 hours =

. ;	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0800	L3: (1 e)	13 - 15 tool	12-16
2.	1130	der of al	171-44 w	12 42 11
3.	1616	Collan	171-256	13-09-1
	1836	3 , 8 × 51,126	171 - 1-1,5	13-200
5.				



SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B

1965 DATE Time at sunrise = Position at sunrise = 0647 14/-39% 170-02% Time at sunset = Position at sunset = 1800 15-02% 170-03%57 111 (56) Miles traveled from 0000 hours to sunrise = (82) = 8= m: Miles traveled from sunrise to sunset (53) Miles traveled from sunset to 2400 hours LONGITUDE LATITUDE N TYPE OF FIX TIME OF FIX 170-05N 14-35 N CELESTIAL 1. 56 15 Controlling 170-05W 14-59,9 N 2. 1835 170.12 W 14 56N LORAN 3. 1938 110-300 14 39,500 4. 3305 LORAN 5. 6. DATE Time at sunrise = Position at sunrise = 0652 13-512 $171-49\omega$ Time at sunset = Position at sunset = 1820 14-04 1772Miles traveled from 0000 hours to sunrise = 74 mi (73) Miles traveled from sunrise to sunset = /08 m; (106) Miles traveled from sunset to 2400 hours = 4/9 m/ TIME OF FIX TYPE OF FIX LONGITUDE CECESHIC 111 42 W 13-5601 1. 06/8 2. 1012 CECESTAL: UR 172-15.5W 13-33N 3. 1530 (REGRELIEL : LERNE 177 5350 13.0/ .5A CALESINE 172-51.2W 14-06.3N 4. 1850 5.

SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B

Time at sunrise = Position at sunrise = 0655 $17/-4/\omega$ 1525MTime at sunset = Position at sunset = 1815. $17/-11\omega$ 16-34M

Miles traveled from 0000 hours to sunrise = 62 mi (60)

(98) Miles traveled from sunrise to sunset = 98

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0630	es to slink	171-43 w	15-26 2
2.	1850	CELESTIAL.	171-15W	16-37N

3.

4.

5.

6.

DATE

= 0701 172-46 N 15-18.2 N Time at sunrise = Position at sunrise

Time at sunset = Position at sunset = 1825 $174-20 \approx 1452$

Miles traveled from 0000 hours to sunrise = 75° Miles traveled from sunrise to sunset = $1/6 \, \text{m}_{\odot}$ (1/6)

Miles traveled from sunset to 2400 hours = 40, (44)

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE	
1.	.0625	C'ELESTIAL	172-411.50	15-22N	フ
2.	1242	CELESTIAL & LORA	IN 173-25	14.23 N	- 1
3.	1855	CELESTIAL	174-74	8w 14-55.5.	N
4.			() () ()		

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SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B

Position at sunrise = 0704/173-21w 16-02N Time at sunrise =

Position at sunset = 18/5 $171-31 \approx 14-50 \text{N}$ Time at sunset =

Miles traveled from 0000 hours to sunrise = 57 ~ 1

= 125 mi (122) Miles traveled from sunrise to sunset

= 36 ~: Miles traveled from sunset to 2400 hours

LONGITUDE TYPE OF FIX LATITUDE TIME OF FIX Calastal 173-28w 15-57 1.0630 CELASTIAL FLOREN 172-03W 16-53N 2. 1530 17/32w 1652~ LOCAN 3. 1800 4. 5.

6.

DATE

= Position at sunrise = 065316-500169-5600Time at sunrise

= 1816 1706~ 168-52W = Position at sunset Time at sunset

Miles traveled from 0000 hours to sunrise = 58 m. (50)

Miles traveled from sunrise to sunset = 60 mi

Miles traveled from sunset to 2400 hours = 4/7 m. (47)

TIME OF FIX	TYPE OF FIX LONGITUDE LATITUDE
1. 0606	VISUAL 168-57w 16-500
2. 1235	VISUACE RADIC 169-36,700 16-50/W
3. 1845	CELESTINE 1788-47W 17-06.
4.	165-4/
5.	
6.	110

SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY LOG -- B Position at sunrise = 8643 /66-48w 17-58w Time at sunrise = Time at sunset = Position at sunset = 174/6 165 - 100 18 - 22Miles traveled from 0000 hours to sunrise = 33 ... (56) = 97 m; (101) Miles traveled from sunrise to sunset = 6/m: Miles traveled from sunset to 2400 hours LONGITUDE ~ LATITUDE ~ TIME OF FIX TYPE OF FIX LORAN 166-4/00 18-0/N 1. 0730 LORAN 166-600 18-14N 2. //35 3. 1820 Cakestine 165-02 W 18-2215 N 164-59 w 18-04 N 4. 1835 5.

6. DATE

Time at sunrise = Position at sunrise = @7/@ /9 - 70 × 163 - 11.1 ω

Time at sunset = Position at sunset = 1835 $19-37.27/61-38./<math>\omega$

Miles traveled from 0000 hours to sunrise = (2 7 (64)

Miles traveled from sunrise to sunset = 7/m.

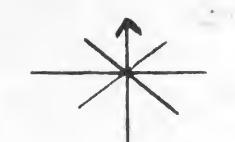
Miles traveled from sunset to 2400 hours = 555 m.

	TIME OF FIX	TYPE OF FIX	LONGITUDE W	LATITUDE ~
1.	0643	Crelistine	163-16 W	19-08.52
2.	1900			19-38N

3.

4.

5.

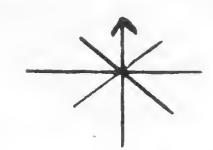


(18/15)

time	species	#	dir.	hgt.	remarks	loc.
					Seen along channel 2 BC-Night Herons, 19	
					Brown Books on Busy, I Sanderling, I Golden	
len er	12.1.				Plover, 1 R. Tyrnstone.	
	Watch Begyn	1 1				-
1021	Pom? Iaeger	2			300 yds - identification by size	
					10:34 - Large shark seen cruising off stb. Fin	
					brownish grey about I foot out of water (504ds. off)	
1053	Pow? Jaeger	1			(?) en Pom. Jueger indicates tail wedge not	
1117	Pern? Jarger				seen.	
		,			Sitting on water on port side.	
/ 11/23	Pom? Jarger	\				
1135	Themsoler og.				Circling shop - ser hubat you	
1135	Thomaster of.	{			200 gt off thes	
1145	Can Juga	3			eventore ship 100-200 your of only i am light	
	4	4			There bod sef. Teil Eternaturalis	
."	John Frage		- m		se hendred	
12.07	Pet Tonty	Î			od, - 150 yes pet closest	
1210	BFA	2			following in water of ship	
1:215	form. Japan	1				
					to note in at , territ sinonico)	
229	Patt Borty	12.			4-5-61 JB Bont.	
1229	Sorty ten	1			typ - for out	
F 1237	tens	7	1		Jan 600t	
F 5245	R/ Borty	1			•4	
	weight dear	1				
	to a	i.f			Resulty magos os 7 plane.	
1/3>	0	7			probably 4 previously recorded v / new } sitting	
1300	Jalger op.	3			together	20
1300	B.F. Alb.	1			RF01 BF - 800-1000 yds off strb	
1320	130064	1		2 /		
	200.7 1200	/		200	· · · · · · · · · · · · · · · · · · ·	
1348	Pom. Jarger	/			Poined previous 5 - 3 flying, 3 selling	
1407	Jacger (P)	1,	0			
F	Sooty Ten	5	well .		100 over water-dark	
	REB	2			lad? limm	
1409	RFB	1			ad- sitting on water (not with flock which	
IHII	P? Juger	3			was loose aggregate	
	P Jargen				sitting on water.	
1433	RFB-					
17 35	WIB	1			adult	



	time	species	#	dir.	hgt.	remarks	loc.
	1457		1		low		
	1504	Pomarine Inger				rock-throwing range	
	1515	P.J.					
			3			total of 3, one of whole probably 1504 bird.	
\	7371	Birel sp.	2			Frobably Jaegens (RBC)	
						A larger number of	
						A larger number of Jaegers were calling than has been previously the case. The call whas high pitched and	
						The state of the s	
	1						
	547	P.J	2			birds in close proximity to another jaen,	
	1608			120	low	1 AA	
	1608	/	/	Now I want	10ω	flying just above jæger; subadult	
_	11/ 11	W.7- Tropic	1			high over fantail	
F	1616	Sooty tem	9	21	to 30'	some immatures	
	1630	12 1 Booky	1	& me	low b		
	1635	Southy Term	2	Ste	100		
	1650	Booling sp	2	-	low	Fither RFB or BFB.	
	1658	Leveles 5 tom Pat	1	.6	how	pabbling around on top of water beriefes several Jacques and Albatr	
F	1700	Sooty Tom	13	75	C-30 ft		
	1730	Wedgetail	1		low	light phase; crossed bow 300 gds.	
	1734	Sorty Ven	4	171		of the state of th	
	1745	Wedgeland	2		30		
	1800	WTTropic		5/4	200		
	1825			1	200	- Si cure BFA 3. MAP	
			-			DT1 (117	
			128			1 ~ 6 min. 1 !	
						Sh 1 1. RFB 9 7	
							-
						57 35 7	1
		(1)				Tern 11 2	
		1				W 4 3	
) - N				Booky 3 2	
		7-				Leach' 2 2 2	
		-				Bird 2 3/	
							-
						BFB	
						W8T 2 2	
						70 29	1



	V	•	1				
	time	species	#	dir.	hgt.	remarks	loc.
stat	0700	B. firtel all.	3			of fontail.	
		white had	7 -			I very large (Longoor or Booky)- all white below	
-						show the to before some many and	
		R.J. Darly	1			et fortail with orbitions In-	
		migetal	-			light ghose ser hursend god	
	0740	Sporty ten	1				
		hedgeland Renk show ?	1			for out	
	(1:145	Frach Stan G	1			100 y S. A from	
		3 / /	1			for off	
E	08,5	Soot Tern	5		2000 0-50 ft		
F		Wistgetail	2		30 4	innature-down in water, tries pickups, but bird took of	
	0840	RIF. B	1			and the state of the pricings, sunt burn look off	
	9842 0052	B, F. Albotross	1	0		n -	
	1008	WITB	3	2		Another Deen later	
Y	1010	Daving ten	(di to	
		Ray for Boney	1	1},-		Il stabians	
F	1012	Sorty ten Bray boch Ten	3/+				
		Dany Ten	3			flew dars for 100-150 yf.	
		Part - Borly	1	O. ha		feeding.	•
		noday ten	2				
	1615	holly ten	1				
	1015	helgetal	1			close of got	
	2	till three B	· fr	t alfat	+nv	inth shy.	
	1021	stan gettel sy?	1			to briefly at distance - block, couldn't see my	
	1025	Sorty ten	2.			met skig, 100 gds- sterland.	
	1050	WT	2			onergy but.	
F	1057	Sody Tem	15 15	1	7.30'	Listant	
	1200	Wedgetül	(and a fee		off bow	
			9 4				



1	

	time	species	# dir.	het.	remarks	loc,
	1258	Wedgetail?	2		Atypical flight - stiff sowed flapping, very quick	
	1259	Sooty Vem	/			
	1304	, hd	2		within edge of nam squall	
		Fanyten	7015		} Freding within saw squall	
		la Sydail	543			
	1334	lupasatoril	/			
	1340	WT	1			
	1346	JF Rewel	1			
	1355	JEG.	1			
		WT	1			
	1355	Leaches?			white rump not seen but size and flight	
	1359	WT	2		plus probabil. by indicate this species very 1.12/2, - both young binds	
	1462	JEP	1			
	1405	WT	3		At least one older bird - age office not	
	14 25	wi	/		yg mil	
IF	1430	Sooty Ern	15=		beely de elye of syoul	
1 '	,	WT	576			
	1442	wt	/		yt bed	
	1445	BFA	/			
			/		Ely says hasht seen one for some time	
	1450	wt shouls a	(
	1757	sipenel sp)		Dark (brom) above, whole belly, westy	
	1500	WT	1		dank underwings; Flight not wt - ent	1
		- 1			1504 - Shark seen, probably Hammarhanel	
	1511	Tw	1		12012	
	1519	SHPT SP.	1			
	1545 1554	Wedgetonl	1/2			
	1601	w.ulgitail	1		110 101 11 . h. for I 11 /1+	
	1604	Shear petrol			Possibly a Newells 5, rapid wing heats fast flight	V = -
	1629	Ivergetail I non Fern	2			
	1635	hadgetail	1 1			
	1700	White - nech getu	1		100 types across bur nearly contrib head white	
	110	heach's p	1		for not	
		p	1 135			



time	species	# 0	lir.	hgt.	remarks	loc.
1736	WT					
1740	BFB					
1741	BFB Leaches				tappavently adult	
1801	WT	1				
1807	RFB	2			Both birds were immatures with brown	
180 5	Leaches	6			upperpants dusky touts and a dusky boun band across the chest. Both circled the boat with apparent intent to lavel. One initially attempted to lad in the must above the buel	
					the well speed indicate. This bird finally landed on the antenure were on the stern most mast	
1810	RFB	3			most of its time preening. Scratched under the	
1820	BFB	1			Imin.	
1821	RAB	3			In m (some as adme)	
2	BEB	1			Tunin/Sub flying with 3 REB	
1829	WT					
1830	SootyT				Flygued bour of boat + rall-	
					eeah-eali (not wide-awhe call) adult.	
1840 -	- obses	1	Ci	rele		
		34			RFB 149 77 W 44650 32	
		43	14		57 182 n 5h 31	
			93		LSP 5 5	
		Ш	241		677 3 A	
			-		FT 5 3	
					GBT 2 1 CN 3 2	· •
					JFP 2 2 2 14 4	Charles and
					5MP 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
					BFB	
					3 3	
					245 44 2 6	3



Time species dir het remarks OTH Between Survive - BRA + REB-Johns. Of Favitary OTH Between Survive - BUT 1 OTH - Survive - Butween A 1 OTH - WIT 1 OTH - WI	loc.
6720 - Sumise 6725 - WT 6734 - Bird of 6741 - WT 6741 - WT 6741 - WT 6741 - WT 6742 Steen/let 1 6824 RFB 1 682	
0734 - Bild of 0741 - WT 0742 Shear Pet 1 0754 Laycan A. 1 0815 RFB 0824 RFB 0824 RFB 0824 RFB 1 CHT 0854 BFA 0916 RFB 1 Charlest only a shot by Ely at 8:14 - Plan or stip apparented ship. (Im) In which ship. (Im) Ely think's its a WNP Possibly different loval. Backs forth across other with BAA - apparently the are which was palid it learning the amena want 0200 - food bangling after the amena want 0200 - food bangling after the apparently the one which was palid it learning the amena want 0200 - food bangling after the apparently the amena want 0200 - food bangling after the apparently the one which was palid it learning the afternoon of the standard and the sta	
10734 - Bird op 10741 - WT 10742 Shear/ Pet 10754 Layean A. 1 0754 Layean A. 1 0754 Layean A. 1 0754 Layean A. 1 0754 RFB 10824 RFB 10825 RFB 10825 RFB 10826 RFB 10	
6741- COT Secrifict 1 0754 Layean A. 1 0815 RFB 1 Control chip + chot by Cly at 8:14 - flow or ship 0824 RFB 1 Control chip + chot by Cly at 8:14 - flow or ship 0824 RFB 1 Control chip + chot by Cly at 8:14 - flow or ship 0824 RFB 1 Control chip + chot by Cly at 8:14 - flow or ship 1 Control chip + chot by Cly at 8:14 - flow or	
0754 haysan A. 1 0815 RFB 1 Colle Circled chip + shot by Cly at 8:14 few or ship appended 0829 RFB 1 Sty and top of me must (Im) Soft BFA 1 Possibly different bind. 09:40 RFB 1 Possibly different bind. 09:40 RFB 1 Possibly different bind. 10:10 RTTB 1 D 120' Result course which was shift at leaving the camera must 0200 - fool fangling collected - DH 10:10 pm 2 minds 1 RFA 1 1350 JFP 1 110 Shan Pital 1 1000 mobil Golg 1 Noon 1 10:00 mobil Golg 1 Noon 1 10:00 mobil Golg 1 Sixeligibus the me foother find for standard companied to the ship of	
Jum with fairly breast board O815 RFB O816 O824 RFB O839 RFB O839 RFB O839 RFB O854 BFA O940 RFB I Z low Back, foth across stem with BFA apparently the one which was shift at learny the camera mail 0200 - food daughing Cleated - DH I 1010 RTTB I D 120' Resume course for H staband One of staband One of staband One of staband One of staband I 1000 mobil And I 1000 mobi	
Circled chip + shot by Cly at 8:11 - Plan or the apparated apparated Sty and sty apparated apparated Sty apparated Sty at 8:14 - Plan or the Sty apparated Sty at 8:14 - Plan or the Sty apparated Sty at Sty at 12 - Or Sty thruk's its a LONG Prossibly different Dind, 10:40 RFFB 2 1000 Backs forth across order with BDFA - apparately the are which was sholl at learning the camera want of 2000 - food daughing Collectical - DH 10:10 PRTTB 10 120' Resume course for fly standard Core of standard Sty 1350 JFP 1000 Brooks Golg	
Circled chip + shot by Cly at 8:11 - Plan or the apparated apparated Sty and sty apparated apparated Sty apparated Sty at 8:14 - Plan or the Sty apparated Sty at 8:14 - Plan or the Sty apparated Sty at Sty at 12 - Or Sty thruk's its a LONG Prossibly different Dind, 10:40 RFFB 2 1000 Backs forth across order with BDFA - apparately the are which was sholl at learning the camera want of 2000 - food daughing Collectical - DH 10:10 PRTTB 10 120' Resume course for fly standard Core of standard Sty 1350 JFP 1000 Brooks Golg	
OB29 REB OB29 REB I When he pell me must (Im) In whe of ship. (Im) Chythank's its a WNP Possibly different bind. Back forth across show with BAA— apparently the one which was sholl at leaving the camere must 0200 - food daugling Collected - DH 1010 RTTB 1020 Resume course for iff starford Close if starford Close if starford Close if starford I was share fitted I was share fitted I was share for the starford I was share fitted I was share fitted I was share for the starford I was share fitted I was shared	
The works of a course for the stand of the s	
CRy Knik's its a WNP Possibly different bind, RFB 1 2 1000 Backs forth across refer with Bot A- apparently the one which was shot at leaving the camera ment 0200 - food dangling Collected - DH 1010 RPTB 1 0 120' Resume course for off steeland Cose of steeland Cose of steeland Cose of steeland Time of 1330 weeksteel 3 circlis bush to higher for flagging than and am A ASV Time of 1630 weeksteel 3 circlis bush to higher here agents three to see Indian weeksteel 3 circlis bush to higher here agents three to see Indian weeksteel 2 for off weeksteel a dare. This regards three to see I 650 weeksteel 2 for off.	
0854 BFA 0940 RFB 1 Z low Backs forth across stem with BBA— apparently the one which was solved at leaving the camera must 0900 - food daughing Collection - DH 1010 PTTB 1 D 120' Resume course for off stability 1357 weeks tal 1 Bow one off stability 1000 probability 1 1000 p	
Back, forth across Stem with Both - apparently the one which was shol at leaving the camera mast 0900 - food langling Collected - DH 1020 Resume course for off stabul Potal of Stabond Cose of stabond Cose of stabond Cose of stabond Frank 1000 probes goly Any Time 1630 wasgitand arelig boughts, booked + and. This regerted time - 42 20 Indian washed at the water 10 see, search - a few to Simple. Save under water 4-5 see.	
apparently the one which was shot of tearing the camera wast 0900 - food dangling collected - DH 1090 REFTB 1 0 120' Resume course for off starford Cose off starford Cose off starford Cose off starford flying town star star star star star star star star	
The conservation of the co	
1010 RFFB 1 7 120' Resume course far off stanford Cose of stanford Cose of stanford 1350 JFP 1410 Shear fatal 1 O-201 for off Alust. 3-400 g off stanford flying toward stan & Jimes 1630 wadgeted 3 circling low poles 1. Times 1630 wadgeted 3 circling low poles 1. I they are found to an including toward to an include the sale of th	
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5-P 7/2	
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DATE 7 Jan. 1964
Pg.#

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Light swell - Tolonge by meaning for much with striple and white on white of the hand which planed in gitting. Flying, then all root to gets out, head, threat of the white of t							
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200 By H. albah. 1 Off fortail - sing unform dock from bid with me while is ugget tell onest storts like trid which felicies is greatly. Flying, then all oral together, 100 yets off all R35 Process Is I see Across bow 100 yets out head, throat Bid I will down show him caross depose breast; when I i so while feathers (As wilds only other Dessibility) - more likely light bring through, 57 21 fort flight "loose" flapping. 120 white the 2 ESF 100" 2 cales, I fless got got shy: 25 deep often to the STA I with a south often to get 1st disappend outer LSP I with a south last to oget 1st disappend outer LSP I with a south often to get 1st disappend outer LSP I with a south often to get 1st disappend outer LSP I with a south often to get 1st disappend outer LSP I with a south of the last to of the last to oget 1st disappend outer LSP I with a south of the last to over 1st disappend outer LSP I with a south of the last						much white in unalle wares?	
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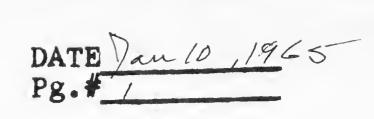


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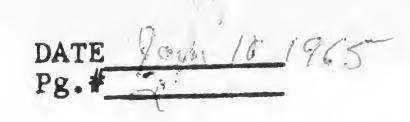
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	time	species	#	dir.	hgt.	remarks	loc.
	0645					Survice - Legin observations	
	0650	BFB	1	N	60'		
	0735	Booky	1	×	to 50'	RFORBF- Love 3 times - distant, whead	
	0735	130004				whale ahead off sto-sport visible	
	0815	BFB -				Following ship - perobably the some are	
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2200		Begin right weitch - 3 Sooty Terrs heard between 9 32 + 1000	
2202 Sooty	Tem 1=3 50	Calls reported but perhaps one bud	
	1 1	Single Wideawake call akead	
-2215	11 1 NONE		
22/6	11 /	Several two syllable calls constant distance ahead & I closer	
7218 /1	1 2+	Scattered : smoot 2 syll:	
2275	1-2	off port shatant	
2776	2 ? ?	Aheard, distant	
2230	1 NE		
2231		Smale call (2 syll of wiele awake)	
2245			
4246	2 3 NA) E	High over skip single syllable call Smile syllables	
146	-2. N. 5	Troo syllable	
4250	F. t	N.D. sechaps up to 10 00 200	
		calls; mostly off sto, high none visible	-
2253	3生长生	Seemed to come from arkend, port, and	
7758	23-30 ?	more coming from ahead Broad front cheard; all calls most	50
3B. C. 8		nearer skip, quiet one syllable gip-yip Count tell if finds oflying past in one sucction or circling Continuous steady volume of calls	
		aheard of ship and on part on oth - birds calling in response to this? Ship lighted by moonlight on these sides only.	



1	

t	ime	species	# d	ir. het.	remarks	loc.
	73/2	Sorty Town	1	E	No calls since last - 19 soup, sprien	£ i
	7314	/	6	5h'	will wrote our yep-yep-over skip	
	73/5		2-3	=		
	3320		A		Constant seines of distant calls since last single call off port; no calls since last	
	2324				Single call off port; no calls since last	
	1375		3-4	ME		
	7325		Š		Numerous collo afead	
		-0010 -	4.1	?	- B 10 B	
		· ·	1		Break	
	OUZ	•/	1		Ahead Cold of the state of	
	00/5		2-3		off Dern-wideaurake	
	00%		1	N.E.	of pert	
	003/		73	Sw		
	0036		1			
	p		1-			
	0 = 4		2-3		Scatterel	
	005.		1	٤	off for	
	,		1	2	from port low toward steer	
Ó	0126	37		+	distance astern (went cost) " leget	H R 00 00
	020	1 57	-7		from the osterny cliny saw to go	I wated
1/	0239	ST	1		Close along part - long to sten inderen	ke
Vi	27110	ST	24		the fantail of sarbitatedech	
./	021	57	1		The star. but to star " w + 2 of cells	c Z t
Mail	0250	5 7	1		Tread for But I consed in fact of the	Go a Alex
WM	0.256	ST	1		from steen to bow calling	
MY	0314	ST	1		low to down	
	032	3 5 7			astern put to starting	
	0 335	ST	2+		er a lout - tous to stem him re	lun
	D HSIS	\$\frac{1}{2}	11		fant cliss dard aland	
		hog				

DATE 10.-11 Jan.
Pg.# 3



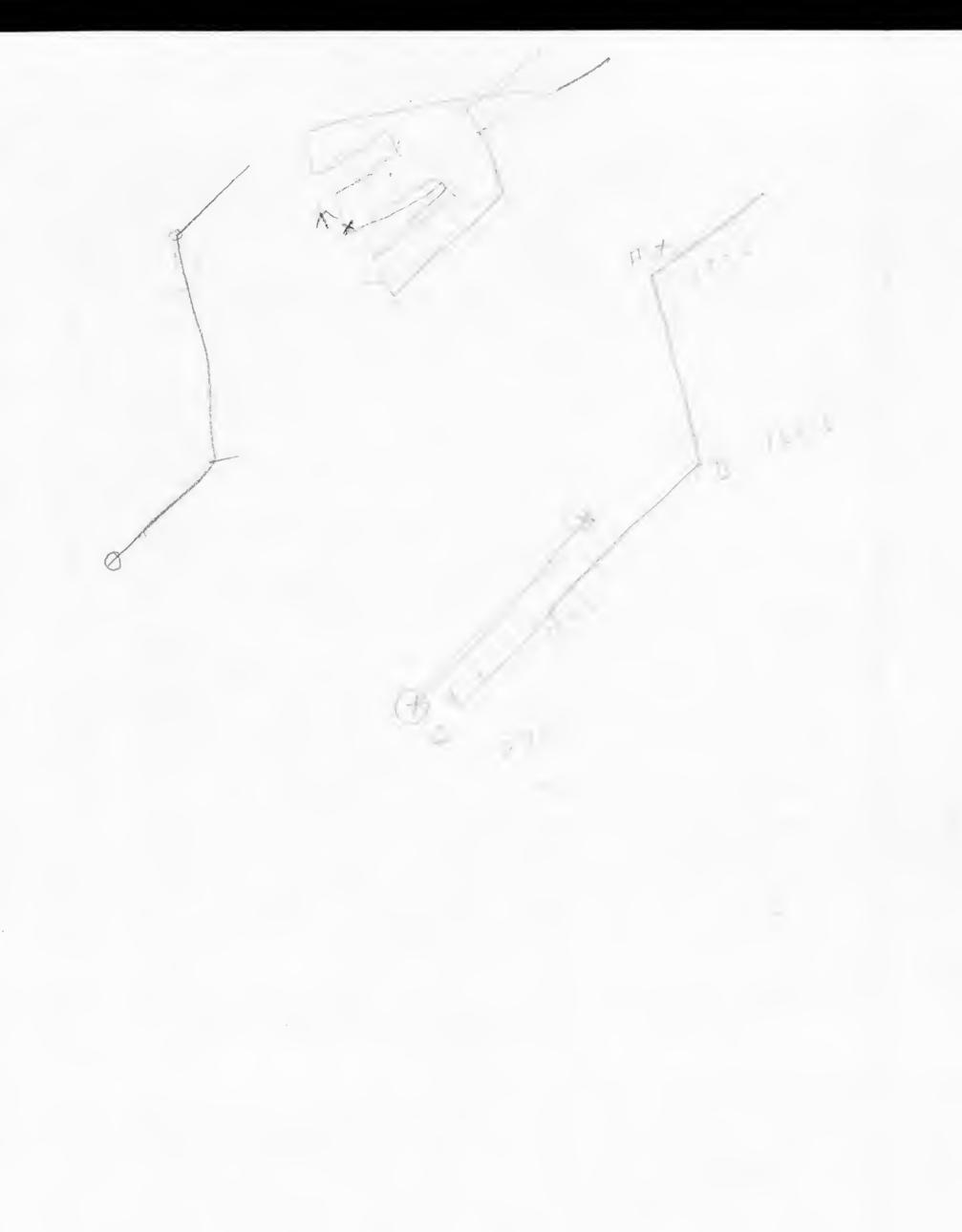
time species # dir. hgt. remarks

0415 57 / Remarks loc. heard but nothern 041255 T 0455 ST 0547 Trispuellisal so 14 - 5 ellering on water

0422 ST 1 - WA one ship by bow



-	time	species	#	dir.	hgt.	remarks	loc.
	10630				,	Junise	
	1534	a Se ale	1	5	low	Md.	
	11850	JFF	1	iv	bow		70
		Shear-Pet	1	N	low	very distant, white below	
	1117	1. 1. 1.	1	501	LOW		{
	1200	n				Course change - short leg.	
	:540	Bund sp	/	NE	high	Tropic sind or booky - reported by crew	
	100 -	-Turn publi					
	1730	Turning again	in.	lou sk	ritaria	2	
7,0			,	5.m	-7	fler in fast 150 yes. starbone	
Just -	1810	to adje-tal	1	72 00			
Drog of the	<i>A</i> .	. F - Dan	10	Tel.	Dem	e. mitt i til de	
	1/4	of a day				I, night unter begun	
		~ 7	,			from get bow toward storm	
	2028	S 7 Redfort	1			1) Of Donald Sauch of show I man from	
	ムはつ	D O. Flat				horse live our hely dock of hit it	+ v i)
-						slowtent the form is het was a from the	
						several landings then flew forward of bows a	I dypel
						down and ever seen montant against	dark way.
1		•				with morelytt & shops light had god &	Dak at buil
1						erdoding inhite tod;	
, ,	2135		-			light spurble	
1						200	
	1117					consents in Suche head at	
	1111	7. T	1				
	0105	5	1			greite sine detero! Kut defiertes	
	231	5 1	2			head -	
	0245	ST				coreling theys	
	0.310	Pro-	计广			Corcling theys	
	0325	50	*				
	\$335	SIT	k				
	2 43	5	R				
	0420	3.7				- Resume weatch	
	0 7 343	21	2	ND		Eff kert	



3 12 hr.

DATE Porti-12
Pg.#

042 ST 1 Per No Widowards over ship, high cold of the sold of sits four 2 and cold of sits four of part have cold of sits four cold of sits four cold of sits of part cold of sits of sold of sits of	time	species	#	dir.	het.	remarks loc.
CHO WIND TEPT I NO CONTROL Off sold for - 2 could cold off sold for all son - 2 could cold off sold for all son off sold for all son off sold for all son off sold for sold fo	0422	51	Ť	THE	NW	Widerwake over skip, high
2016 R. t. Tropic 1 NE 200 gh off sith 2750 Itopic (273) 2750 Itopic	04.31	a handle do many on the	1			faint call off sits bow - 2 sull
2015 R. t. Tropic 1 NE 200 gds off abb 10725 Tropic (RTD) 10724 We held will 1 S 10834 R. F. 13 I W 1000 Rown? while all 10834 R. F. 13 I W 1000 Rown? while all 100-150 Regions the head of the mines, goldelet the off the literally ground at the header woo when the header woo when the last of the new control of the literally ground at the New Control of the last of the la				NW		Got off, water off port boar
1200 1200	 1655					
1250 1250 1774 1874 1875 1 W 100 1 four 2 with 1 and 1 So feel 1 NW 100'4 four about, flow you day get at 100-150' 1875 1880		R t. Tropic	T-man I	NE		
1200 1200		~				Whale - long-lasting apout
1200 1200	-		1			on water 200 gds off port
1200 1200		1)	ĺ	5		
Regging steady, show for this height, was well the literally grows to the surprise of the off. The literally grows to the surprise of the off. Reggind abthale and fregged shouly to the Niv. Cox Reggind abthale and fregged shouly to the Niv. Cox Reggind obthale and fregged shouly to the Niv. Cox Reggind obthale and fregged shouly to the Niv. Cox Reggind obthale and fregged shouly to the Niv. Reggind obtha	1	1,7	·	tai	low	Jumm? - write - ail
1200 searching on fish ball. The foll of the foll of the fall. The foll of the fall of the			7	NW	1004	thorowing stadily, stook from this height was
1310 R.T. T. Girs I high high high sould on the foll of the state of cools) 1515 1600 R.F. B. B. S. S. B. B. S. S. B. B. S. Good ship leader to the state of th	1200	searching.	-8~	j sh	fall	Peganial settlede and fregget storely to are for at lest mosted Broly returned & several in are for at lest
1515 1600 RFB 1610 RFB	1258			NË:		picked up from toll!
1600 RRB 1 07 minuture 1618 R. F. Albitour 1 0 1655 Walestail 1 Estates an water 1705 Walestail 1 Attaly an water 1800 R. Levely 3 NW In 102, leading of 2 mm. for 5. good ship (about NW - 200-300 yb. out 1800 Rul 1800 but	1310	R. T. t. but	i	high		hyter men making.
1600 RFB 1618 Both Abbitrary 1 © 1855 Westpotal 1 Establing on wells 1800 Rf. looky 3 NW In 102, leading 52 cmm. for 5. Bood ship (other NW - 200-300 yell out 1800 Rf. looky 3 NW Int 1800 But	1515					turned NW - 312
1618 Reficient 1 © 1865 Websteil 1 Estately an water 1800 R. J. Levby 3 NW In 108, leading of 2 common for 5. Good ship 1. 1800 R. J. Levby 3 NW In 108, leading of 2 common for 5. Good ship 1. 1800 R. J. Levby 3 NW In 108, leading of 2 common for 5. Good ship 1. 1800 R. J. Levby 3 NW In 108, leading of 2 common for 5. Good ship 1.	14.00	RFB	ì	07		meturi
1705 Walestail 1 Little on water 1900 R. J. levely 3 NW In 103, levely 52 cmm. for 5. Bod ship (, other NW - 200-300 year out officers frilling at 1800 but			1	(6)		
1705 Wedgelout 1 Littling on water 1900 R. J. levely 3 NW In 108, levely 52 cmm. for 5. good ship 6. about NW - 200-300 you out of 1800 but		1 1 1		f:		
obut NW - 200-300 you out Olleting st 1800 but		W who told	·	Tit	they a	a swalter.
object NW - 200-300 god out Start 1800 but	1506	R. J. Ricky	3	NW	In	
Prut 1800		()				
		Suret.			And Communities and James Story 12	but 18pm



time	species	# dir.		0
1930	**		turn to Sw	
1945	ST	2-3 €	way yip calls	
2016		1 NE	With of Derivan	
Je 30			Smile 1079 of port stern	
2100	RTT	1 SW		
2105	ST	3 16	accont sale	
7110	Ē. (2-3 2	grotant	, it
2115		13 NE	far off sto un	e.
2120		1-2 NE		1
2121		3 NE	Esparated W7	
3,131	ł	1 8		
2135		2 €-108 2-3 NE	(i . 70 71 . 71)	
2136		5	Seen to remain about same rel portions.	
1		6-0	perhaps many streaming pest, distant	
8.142	1	i NE		
2145		1-3	Separated calls	
2150		3-14	n; lover shyp	
2151		3		
2204	Si		waleche to put	
2.2 06	,	1		
3210		1-2		
32 3		3-4	At least 3 WA & 1 yes	
015		appearance in	hevel at one disture but fauts	
1016				
		4-5	Duffereit oping to put also at me	
1018		7	distance -	
1872		.2	nen.	
1024	-	2-3		
1029				
6028		1	your flying off the final slute	
1030		3-10	linely not les Hun five pulling	
1.037		1	10 cc mil	
			gurneliste en ustra helen	
1640		2-3	blev quite new the seleys	

1041 1647 smill epicy but call to slen 1050 coulit shew of uples? Hu my 1053 bod? they the proved Prilary no apart mules let shows vecurence 1055 1100 3-4 break for coffee the. 1115- 118 opul for act 2-3 cheto ten in there - Uy living net prince 1192 5-10 las the file. To the ein the red is an aucht I wife " waily assective with fleches fely malest fully light that for much 5-8 ments so out pet du agree lyen cualists mule of level could un parally be greater then the number clearly Celled of Cot culing on the less. Heard entil a lent 1134 about ordined, no my of hely wellen the sa sheer & lows or ever feet sing et sue outoit delivee li the elip. But me buil Li. slubrel & fred of the ship sleptiel by eles quy at that 11:37 to jut except fourty. frely the willand



Down 3-10 Cause grap bed cell at its de- guest about the south of the Dew from substant the part of the first from substant to the deal of the form substant to the tell and that deaded in the lay dealer to the test deaded in the lay dealer to the test deaded in the lay dealer to the to make appeared other cours the one of the part of the substant was less been and every the like and the fort respectively from the first respectively from the first respectively from the first the substant to the first that one is the substant to the pears the substant	time	species	# dir.	hgt.	remarks had called of	loc.
	1210		# dir.		combe grap bad call at the ster guilt about the state of the point of the bus from shape we to state the state all is combat from the first state of the from esseled cut from 1143 the pearly first state of 1143 to part from conducting from 1143 to part of the state of 1143 to part of the state of 1143 to part of part of the said such from the front of the fact such front check and the fact was both tripon the shap but but the first prove the man of both the pure the part of the man of both the an effect of from the part but one of the state of alut need but one of the state of the part the an effect of from the part but one are the state of the part but one are used for part of the state but one are used for part of these	amount
			1-2			

put mobe elser epulciels desery. allust & abel swent smel scilled groups bend - Crim 4.5 1220 while colls are not es only, but, in eiter as early they ar relating sheet in occurre out our quever be public out in quet pueda by belong suled -Prof & studed fred & lyle Clark liver, ale grite welvert eleven a species of court everyt electors may Mun when me descreed the foreig Sees stell my flest & columnell lut so quille liege - Tempettre and but not depluyeyezer of all adoptall to un while three were two five 7-8 but ruly was with mix contain - amente debute with that oyest is that the break queenly dud not now en nearly on the with the play is they deal flat eny (notor the predictiones ellemente of theil weeky are in put, well bilt to put at a quite oblice pen aine Deud selver from 1235 to 1245 Deud selver from 1235 to 1200 to port

DATE Jan/2-13
Pg. # 1

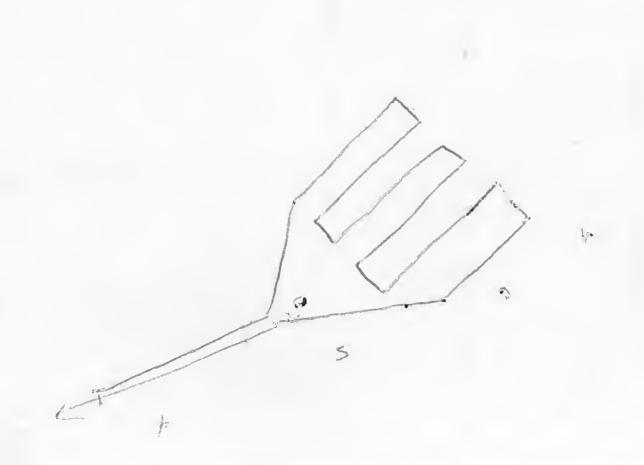
Pg. # 1

Oct 100

Cit 100

	# 41-	hat romarks	o Jugo		CA
ime species	F dir.	hgt. remarks	over slill b	erres - Co	new -
1350		Canel.	to lent to el	by put 1	ge an
		the eve	T.		į
		402			
255 2-3		mut bed	1, 4 whi old	lut - P	arel
9115 ST	1	ouce se	elelizhers	londe	
5133 ST	2	appener	206 alida	- wheel	englis
SINC ST	1	The defend	leat bet	white a	50,
0150 ST	1	for the			
0 225 57	,				
0162					
	1				
5736 ST 5332 ST					
	1-				
6343 Bird Mp	1			7-8	2-3
0345 5 7	2;			8-9	28-38
0410 ST 6420 ST				11-12	15.31
HH 5 5 T. 1.				12-1	37-38
500 Bird 19				4-3	3 2
			. 1	3-4	4
				3-6	

	ime	species	#	dir.	hgt.	remarks	loc.
ar t	2708 734 •75c	RTT RFB Pterentrown Sh Pert	-	}	ler)	Imm RF with al least two ether brids. Therefrome with donk book, too far to see pattern, body light below, wrings all donk, could not make out beard, smaller than wedgetail, very fast flight, much flapping, no sanking deposited at ships approach; could not see lead. The ar Pet may have been wedgetail	
	0938 0938 0939 0950 1255	Tropiesind		2		hange fish jumping beneath as well as numerous flying fish. Distant Distant Dark places glumpsed at a distance on water 20 m/s off oils flying behind us on water, distant Uniform dark gray brown a fore, white below except dark throat (not as far down as except dark throat (not as far down as	
DON STATES OF ST	13日2 15日5 1710 1753 1830	Nathantonil IFF Frigate of	1111221	NE SW SW N	11/11	tip. Flow lagy flight Circled Stern 2-3 times	

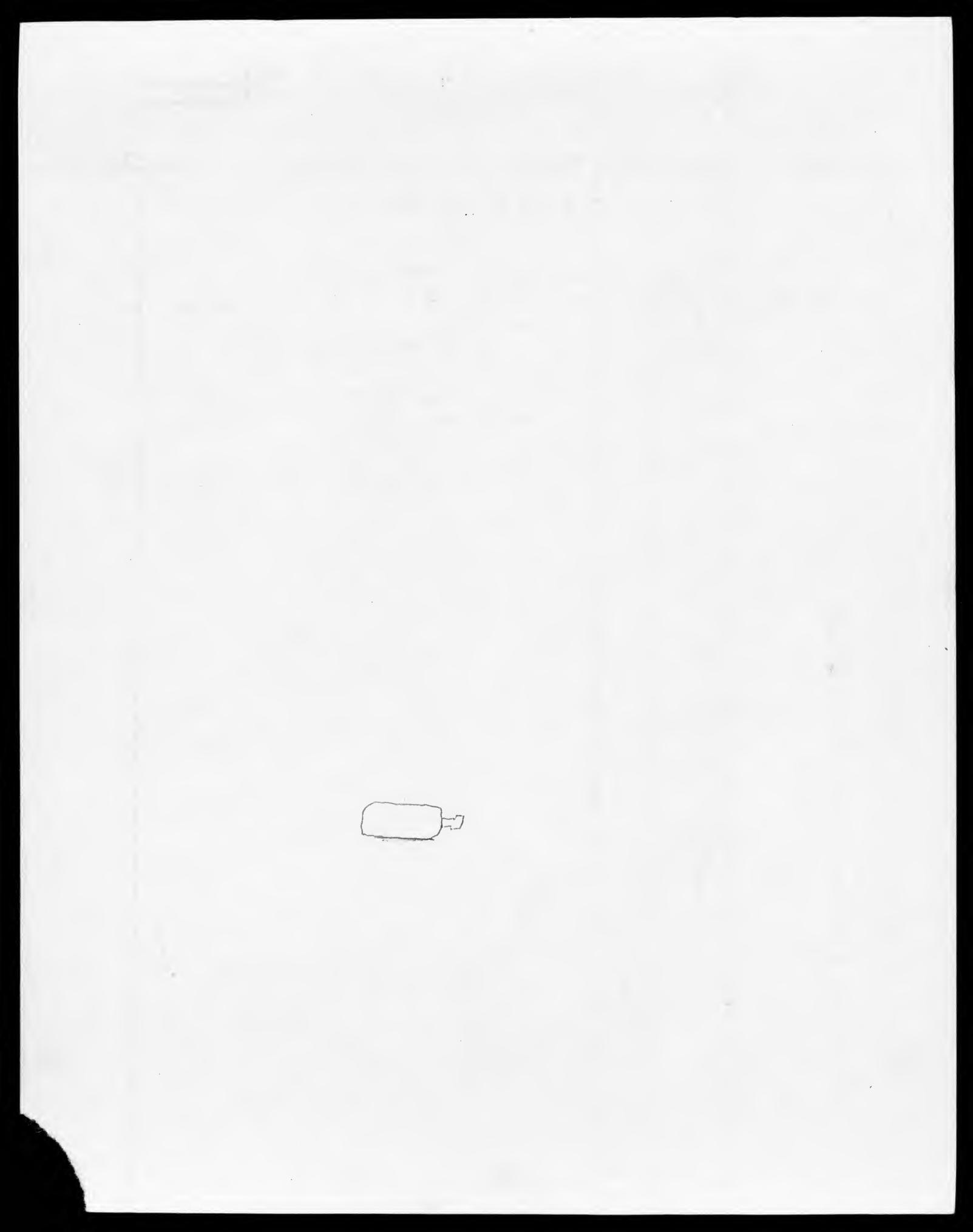


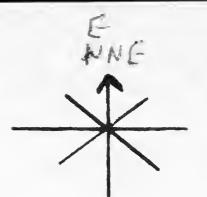


time	species	# dir.	hgt.		loc
2005	400			tunto NE	
5:30	-2100 -	A.		- fantail - no brids	
1 , ~		1		angly find called twent	
15	ST	11/		- single luck, called truce many in	
				ducher of duber anow relative	
				to ships couse - Bul, With calls have	
				alunt devel where	
1 41	8-			0 201	
\mathcal{X}				Same en alure? Digle lul	
1215	ST			Circled and on sleened &	
		1			
				appronts. deputel en some sele	
245					
	ST			to put a wel lish	
7 2 25	57	A			
2239	57	1		long ways off	
5310	5.7				
0410		-		morantet	
	mar la	0 00	2	heard on 0410 - 0700 watch	
				The state of the s	

NE	

Time species 4 dir. het. remarks 0840 1830 Puffins op 1 50 All Anch, appeared Janger than we declared and strong the remarks. Stems gliding, no flapping. Dr. Wedgethel, Stember Lill, plants fool? Much tanking, not typical of Wedgethell 1347 Sh-potrel 1 d. All Anch open at long sange and sublanty disangeaving on calven upon which it presumably sat down. See mall sublanty with naurous wings but at offer to grant naurous wings but at offer to arrive a surface of water. As alone? 1430 J. B. Bettel 1 V. Care in this solve of the part. 1505 RFB. 1 SW loss 2 mm 500 yts off port. 1750 RFB. 1 SW loss 2 mm 500 yts off port.			4	44 **	hat	remarks
1347 Sh-petrel 1 I All dark, appeared larger than Wedgetard and it noughter wriged. Slow gliding no flapping. Dt hedgetard, Slander Sell, Pale fool? Much tanking, not typical of Wedgetard All dark-seen at long range and suddenly disappearing an calin upon when it presumably sat down. Seemed a hunky with nawner wriges but at givent range Capped and banked steeply but alose to gurtace of water. As above: 1430 J. B. Betrel 1 V care in to within 80-108 year. I port. We appeal a popoise surfaced 30 off pt.	cime s	Decles	1	arre	ILKE	1 Cuick NO
1347 Sh-petrel 1 de antique and suddenly disappearing on calin upon wheli it presumably sat down. See mod a bunky with navious which steeply but a lose to surface of water. As above: 1430 J. B. Bettel 1 V came is to with 80-10 eyel. of port. 1705 Wo reposite purposed 30 off pt Wo reposit	1230 P	ieffinus op				DII dark appeared larces than Wedgetail
1705 Came in to within 80-100 yok. of port. 1705 Whate or porpoise surfaced 30 off pt No report	1547 S	sh-petrel	7	1		all dark-seen at long range and suddenly disappearing on calin upon wheth it presumably sat down- Seemed abunky with namous wings but at great range Eapped and banked steeply but alose to
	1705	. D. Ostrel	<i>j</i>	V		came in to within 80-100 yok. of port whate or porpoise-surfaced 30 off
1750 RFB 1 FW low 2mm 500 yh off part Sunnel						pro mond
(181)	1750	RFB.	j	Stu)	low	Imm 500 st off port
					and the second s	en e





	time .	species	# dir.	het.	remarks	loc.
5		5.7	1 sw?		Toppened to be flying toward near of ships coll	bullsmake-
1		< T	1 2	J	monlyst but cloudy over 60-7070 of sky heart I wideanshe creft port ostern.	
		ST			Mans I wonderwood Critical Port oscini	it but was
64	907	ST ti?			heard several calls off port - I was quite differe not respected. But (incl. I sorty) were ently of Calling faith.	on Hor
					Colley family.	
	09/0	57'	1?			50% char
	1	Change is		-)		
	0935	ST	1 ?	1	m 090 to 045 ont monlyst though when the state of the I call when the	bookin clus.
	0958	-	1 ENE		wind gusty - definet to heard calls when be	mi i
					from sten formal ser-good undrawale call,	
		B-	-			
n kun	1015	ST	1		1	
P-	1125	21	1	a do	stern pur	
	1737	ST	1.	14	and new elye of ship	
	1050	ST	1	,		
	1053	ST			hele oneheard which steel mes	
D	106	ST			prit datul elever. In clad	
in.	-	51	,		a la sellenelle	
7 (IKU				put to your way speed	
3	20)	*	1		well light " White " war greatedy)	
40°	1210	ST			thoo or wit?	
-	0153	57			Single call for off port	
	0212		IW			
	0330	- 17-12-11	1-2-6-		off Port	
	0513				Tohuston lights hill glow on horiger	
	0530			-	top antennalight on housen	

1	

	time	species	#	dir.	het.	remarks	loc.
N	3700			Top can		- survise - Johnston v 20 miles ahead	
	0719	RFB	1	W		low 34	
	0734	RFB	4	20		2A, 2I	
	0730	Rode VIII	VIV	ALTAN		D 41	
F		Birdtp.	-6-	t 5w		First seen 2 mit, looked like bookies	
٤		Sooty Tom	5			For beyond above group.	
`	0745	Ferns BFB	(n-	10 (8)		Collected - DH od 8	
	0823	BFA	Principle			Seen with Johnson on sight on The heaven Following while mornewering to prick up BF13; Collected from VP	
	0830	Frigati	Primer desault	3 34		Horizon Bezin compass maneuvers	
	0832	Brown Bush	1				
F	1145	RF Booky	5	2		1-2 imm. 1/2-2 m. from ship. Could not distinguish between RF4Bt beyond 700 g to when held up in VP tout this against background of people, not water. Could easily distinguished Boobies beyond I mi jal which time	
						flock in view 1/2-2 times as far. Probably can see ad. 13+ 1 RF at 3 mi., imm. at 1/2. From sigles showiness of white, sooty terms at 1/2-2 mi or greater; to for light bodied skearwater-petrels. Very calm, clear, opposite sur.	
	1009	Sorty Tem	2			3/4 mi est - 1 mi - 1/4 by radar on UP	
	1018	RFR	1				
	1018	010	1,			aex 11 A	
	1010	KFB	1			ence - sitty ou water	
	1:21	8F)			or huynn 11/2-2m.	
N.	1024	Books Sp. Laughing ? bull Whole				Collected RBC	
	42 50	RFB	2		1		
	1305	RFE)	C. Bridge			
/k	1310	RFB	1				
FF		RFB	4),	- Zim	Jou -	- hold SF, reen to be joining other Booky on somewhat	11 1 1
	1330	RTTB	4		high	- holled S.F., reen to be joining other Booky? an inwhite	a feeding k



~	time	species		dir.		remarks	loc.
6	1335	RFB	109	15th.	thy	n unter, busine tives	
FF	1337	Scoty Turn	255			i acoling	
		RFB	8.			Finne tur	
	1305	PF. Borly	4.	n 430		atteny in loss plack-about 100 you agant - 300-400 yb.	of starboard.
(R. F. Borky	10	on Hz			
4	15 30		i			lose fleek of 8 and 2 nearly. 8 ods. + 2 Im. (6 al. 2 Im)	
	15 55		*	NW	Low		
		REB	2		lan	RFB 77/22	
	1616					57 36/4 Tem 9/2	
6	1618		2			1 innoture BFB 6/4 BFA 1/1	
		Bookyap	4			F 2/2	
	1646	A F.B	2	5 W		BB 1/1 Gull sp 1/1	
	1655	AFB	H	3		Booky 5/2	
	1658	RIFB	1	5a		PTT (/)	
	1720		i	5~		whole also seen GBT 1/1	
		Sooty Torn	4	5		140/36	
	1724	RFA) -	- 0		way of	,
	1727	RFB S J T	3	low		3 000.	2-
	1,70	500 Jem	}		low	sat on floating carten 250 gds off port	
	1756	RF3	ř			Across Helo Leck	
			93				
			40				
			190			Hd Ina 2 3A	
		69.					
		16.67				11 + m + m + m + m + m + m + m + m + m +	
	1	0				144-11	
	\					33	
						一十十十十十十十十十十十十十十十十十十十十十十十十十十十十十十十十十十十十	
						HH HH HH 11	
						1711 11 11 1	
						36	

DATE Jun 15-16
Pg.# wight loc. remarks time Soots Tem off port 5W over ship 1934 Behind, then to rear from ahead 1935 EZ From orhead 19.36 Sw from ahead 1940 Sw 1952 7 1 Dalo 2022 2028 2040 2042 W 2045 2055 2115 Either side 2118 2145 235W 3,50 2458 lyk & orrecheerel 18代5 1100 ove formed, me put. NE - stem to bow (underwoke). full mon - sky 80% open omen holden about 80% overest 0300



DATE 1 da a a Pg.#

	time	species	#	dir.	hgt.	remarks	loc.
	0644	Surviva	4	o the	,	hip not seen after 930 Above Sootas Collected,	
	6746	B. F Albabas	1	flatrice	ory d	hip not seen after 7 20	
F S F	1107	Sorty Lem	8			of the state of a	
	1210	RFB	7	Jan-		- collected 1	
	1215	hoots Torn	1				
		Veolgetreel	-				
	1430	Sooty Turn Suntest	43				
	130	Sunto Fr	1	Jos		Cel.	
	ō • • • • • • • • • • • • • • • • • • •		£ 50.	-			
			The state of the s				
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		, d.					
	,						

2.0	The first for the state of the	ng t ₹ har the state of the st	A) - 2 ()
<u> </u>		*Poly.	

	time	species	#	dir.	hgt.	remarks	loc.
	2050	Sooty Teru	1			W7 Dehind	
	2055	Snooth Ten	į			Yip-yip high above	
	2136	·) - { (2	(7			
	10137	551	/				
	2325	57	i			? call by ble - forward & to get	
	23 H33	ST	1-2			Road byll ble-forward & to get	
23	441	ST	}				
•	H52	51	j				
4	1208	ST	4:	2			
	9 737	Albatrons	2+	4		2 wieling ships, probably another out hurther	
(R.)	0543		,				
O O	0600	8 hear-Patriel	2			flying at rord morabight water.	
	0603	5/12	ĺ			laye gettel or shownoth.	
0	0625	shor-Potal		<u> </u>			
The state of	0 4 50	BF Albabears	*	0		totolof 3 now	
102	0758		+			titel of 4	
Set Time	e .	wedgetail	į	ENE	lav		
	0808	Sooty Term Shar Petral	172	1000		Frobably wedgelails	
	0815	BFA	1			- 5 Tatal	
	(×30	Wedsolie V	2	~~	Low		
4	5850	Frigote Ct	29000		Righ		
	0915	Cohe stal	l	co-e	low		
1	0918		2	0	high	6 Total	
CE	0135	Δ	351			- Beeling, law in motor	E The second sec
YI		Fairy Torry Washartoil	3				-
\		5 Leve - Palest	10		*		
	1000	BFA	1	(20)	low	Stotal	
		71	0				\$



time	species	#	dir.		remarks loc.
1124	GF	1	Sw	60	87
1320	Leach's	1	NW		Feeding? Dathling along water at several pis
1335	Sorty Tem	1	2	10"	
1328	11	i	SE		
1328	1 4	(SE		
1405	heach's)	W		
	1 1				
1445	whale sp	3			I looked don- 20
	whale up	No	n pagaganggananananan salah panghahas salah salah panghahas salah		- remellach there with one for bushes on backs, about 300,
	/	25	Sw		I looked downely with green bughes on backs, about 300,
1708	Testy Em	>			
1805	} ~ 1 3	1	SE		8-10 at once
1 29	RFB	j			solod white phose
~/	4.100	,			Control of the Contro
4	1				6 +2
1830	Sunset				*
					WIGHT WATCH 8+2
					4
		77			· J
		(3
					, 1
					W 13/3
					1. 4.2
	•				57 59/7
					5-P 131- 6+2
					F 13/2
					4/3 8+2
					CP 1/1
					F1 7/1 2
					WNP 111 V+8
					LSP 2/2 10 RFB 1/1 10-30/-
					RFB 1/1 10 30/-
					KFB 1/1 10-30/7
					97/17
					SPA-
					7-62/7
					51
					5.27
		1			

DATE Jan 17-18
Pg.#

Night Wahln

	time/	species	#	dir.	hgt.	remarks loc.
	18307	- Sunset				
	1838 1845 1900	Tropielo-d RFB - BFB	1	- Fely		ivam.
	0918	ST	1			to stubiel -
	2210 0115 0404	5' T	1-1	NW N		from 5 to N across for ; short calls. forelmonlight. across for - "undeawake call." und from duritly whends
	0510	5 havi Patral	1	Jallaur	ing rh	jo
y	0630	Shear-Petrul Wiedgelail BFA	2-			Total of 3
0,//	0705	Soots Tuns RTTB Whales up.	2 1 5-	Mw		- Bback dorrally
	0742	reltit. bid	* 2	N		En græfælly in sprød fra Considerable heypit
, -	10751	sorty tem	1 2 4#1 15t	SE		B. F. A. 0750 - 3 0810 - 4
		Stendame white t. t. had Sorty Ten	1	ENE	100'	for out
F	0820	Jany Ten Sorty Ten Fairy Tom	6+	wsw		for ant LSP -WT WITHB WITHB
0826		Soots Terri JFP Shor-Patrul	4 10+ 3 6±			Freeling medicin strange FT 4 15 ST 7 44 Plot 1 15
P	0836	Fairy Term Souty Toka Northy Ton	9 2	15		5/P 1 3 5/P
	0937	Soots Tom	7 2			NT 12



							100
	time	species	#	dir.		remarks	loc.
	0857	SoutyTern		2	low		
	0857	Leachia		٤	- '		
	09912			Sw Nw	30'		
	0915	Wedgetail	1				
	0926	Sooy Term	2	5E		- mall (about Bulwers ringe) alldock, bliging like a pet	trelling a h
	0940	Shoon- Patrick	1 -			Resembled Gray-back but Dayle says not	2
	0947	Tem sp.	1	Sw	1000	Resembled Blay - south of the tween wing girte- not enough contrast between wing 1 back, cap not seen. Common ?	0
	0947	Layson Alb.	1				
	2002	Scent Signite	,				
F	0453	Dainy Ten	2			not feeling. Later approprial ship.	
		Sorty Con	8	> -			
		nolly	1				
		medical	2				
		0					
	0958	Bed-fort. Borly	1	\sim	In	ad.	
	1000	Shew-get.	1			for out.	
	1014	Wedgetail	1	N		off fortal	
	1034	wedgetail	1				
	1834	Layran alfations	1			around ship left about 1050	
	1034	Level 5. getel	1	E		ser. hundred yes off stold.	
	1115	Sooty Torn	1				
	1123	Sooty Torn	541			50 motore	
F		Common Valoly	8t-		-	- staying law to water	
		Fairy Torn	3				
	1153	Layson A16.	2	SE?		13/4 mi off port-10 ame in until 1235	
	1155		1	NE			
	1200	Sooty Tern	1	NW			
	1206	• • • • • • • • • • • • • • • • • • • •	Z	NW			
	1228	Leach's	1	7			
	1258		1	SE		Got off water	-
	1303	Tody Tem	2	NW		ST 13 85	
	1316	11 /1	3	5		-LSP 3 3 FT 5 8 LNT 5 6	
	1327		1			Lu 1 5 6	
	132		1	NE		-5/P 3 3	
	1330	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3	NW			
	1338		1	NW		V Total	
	1339	10000	1	Bro		- LA 3	
F	1340	Sooty Tem	7	·NW		25 F 1	
,		I I I I I I I I I I I I I I I I I I I	L	NW			
						VR48 1	1
						12/	





	time	species	#	dir.	hgt.	remarks		loc.
	1342		1	NW	10W			
	1345	Lay san All.	1			following		
		Farry Tem	- 1	Ò				
	1352		1	NW	50.	-0 1/	1 · -A	
	1413	Booky? ap.	1			on water 1/2 mit; possibly	object	
		Leacher Storm Pot	1	0			BFH = 12/1	
	1502			Mu	Low		LA- 6/3	
	1		7	Nu		Travell	57-207/35	
	1535	RFB		275		Low	FT - 29/13	
15	1550	Soots Torn Fabrytiern	35t 3	5 Ē			NIT-	
							1/13	And the second s
		Layson Albatron	l	6			Ten - 1/1	
	1336	Sooty Tern	ı				+ - 1/1	
(OF C	Pairy Tiorn	l				RFB- 4/3	
		ST	2			1640 RFB-2-5W	Booky - 1/1	TITLE
	1640	ST	1				W - 7/6	W
	1702	ST	2		The state of the s		6MP 1/1	-
	170 C-						JFP 3/1	
	1710	Jacque 1	2			deck 4- loged	Pte1 - 15/1	
	1712		4			as wester	5-P- 9/4	
V-	1719	F3-	/1		and the second of the second o	and the second		
		ST	- Alegare			of least 6 PT chasing o	1 Chrafe Si	*
						J.	La 5 find - 5/-	
	1720	57	1	le st			RTT 2/1	
	1721	ST	7			le je en de jeen en	478 . 1/1	
	1731	an I fine	1				DJ - 5/1	
6	1730	Sooty Toen	6				Brid - 1/1	
-							334 1 J. C.	
F	1741	Sooty Term	12			· (()	e. It seed to	
		3	,				75 tal 32/167	
		,				44	-13 FM = 1 17	
		2					-ST 15 78 -LA 2 2 FT 4 6	
		4				20-7		
							- Boh 3 1	
						12!	- LSP 2 1 5 *	
						109	- 12 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

dilles.

Ely Hamplirry Sibbing Gould Wirtz Ameron Thompson

AT SEA SURVEY 18 JANUARY 1965

The 18th At Sea Survey was conducted from 4-18 January with four Smithsonian Institution personnel aboard - Charles Ely (Biologist in Charge), Kenneth Amerman, Roger Clapp and Dayle Husted. Observations were made during all daylight hours both en route to and from the Grid and within the Grid proper. Nocturnal observations were made for nine nights including areas both inside and outside the Grid.

The trip plan was modified in several ways from previous cruises.

Details are presented in the Trip Report. The usual two man, two hour watch was used at the beginning of the cruise but so few birds were recorded that less formal watches were maintained for the remainder of the trip. At least one man was constantly on watch. Nocturnal observations were made with one man, three hour watches. No oceanographers were aboard and no BT casts were taken. The Field Party members prepared about 80 birds left frozen from previous trips - 56 were stuffed before supplies were exhausted. Cooperation from the ship was very good; shooting was rarely restricted; and the whaleboat was lowered for three hours near Johnston Island for collecting and distance measurement experiments.

Six and one half days were spent within the Grid; eight and one half days en route (Table 1). Diurnal observations were conducted for a total of 75 hours (150 man hours) and 688 linear miles within the Grid and a total of 92.8 hours (185.6 man hours) and 763 linear miles outside the Grid. Nocturnal observations totalled 50.9 hours and 466 miles inside the Grid and 60.3 hours and 555 miles outside the Grid. Additional details of mileage and time logged are in Tables 1 and 2.

A total of 1021 birds was recorded - 959 outside the Grid and 62 inside the Grid. In both cases this is a drastic drop from the December numbers (1932, 1451 and 481 respectively). This decrease was much greater than last year and produced a new low density for the Grid area. Twenty species were recorded with 11 occurring only outside the Grid (Laysan Albatross, Phoenix Island Petrel, White-necked Petrel, Cook Petrel, Pomarine Jaeger, Laughing (?) Gull, Common Noddy, Brown Booby, Fairy Tern, Sooty Tern and Gray-backed Tern). Seven birds of four species were collected.

An average of 7 species was observed per day (8.7 outside grid; 4.3 inside grid). This was a drop inside the Grid and an increase outside the Grid as compared to December.

Weather was very mild especially inside the Grid. Overcast conditions and rain squalls were rare. Sea conditions were mild and waves were two feet or less on all but a few occasions. Swells were often deep, especially during the return from Johnston Atoll. Several days were calm and almost glassy except for swells. At such times the water surface was gently rippled and with extensive slicks between the swells.

The effects of these weather conditions on bird numbers is unknown but they may have been significant. It seemed however, that on this cruise no more birds were seen during the windy than during the calm periods.

Boobies were observed sitting on the water in small flocks during one very calm period. No storm petrels were observed at any of the slicks.

Visibility was always good (8 mile minimum) and usually excellent (10 or more). On calm days it was possible to distinguish details of cloud formations as they appeared above the horizon. Small floating objects and birds could be seen at a great distance.

J. 13

Annotated List

Black-footed Albatross

(An overall increase from December of from 18 to 26 birds)

Grid: Decrease of 1: 1 followed the ship briefly 85-95 mi. SW of Johnston Atoll.

Non-Grid: Increase of 10: Albatross numbers are difficult to ascertain therefore the maximum seen at any one time for each day was used. Birds were progressively more numerous near Oahu and irregular more than 300 miles from Oahu. In general, near Oahu maximum numbers were recorded near dusk but away from Oahu birds were most frequently seen in early morning. Birds were sighted from near Oahu to 19 mi. NNW Johnston Atoll (one collected).

Laysan Albatross

0 3

(An overall increase from December of from 3 to 7 birds (6 sightings).

Grid: Not recorded.

Non-Grid: increase of 4 over December. One was recorded about 360 mi. ENE Johnston Atoll; the remainder from 35 to 95 miles SW Oahu.

Wedge-tailed Shearwater

(An overall decrease from December of from 423 to 97 birds (58 sightings).

Grid: decrease of 232. Seven single birds (all light phase birds) were observed at widely scattered localities.

Non-Grid: decrease of 9h; fifty one sightings representing 90 individuals were logged. Observations were widely scattered with a few birds within 50 miles of Pearl Harbor and within 85 miles of Johnston Atoll. The only concentration of sightings was between 180 and 260 miles SW of Pearl Harbor (50 birds). Only six bird flocks contained wedge-tails (10 birds maximum).

All birds seen were light phase birds and most seen clearly were birds of the year.

Phoenix Island Petrel

(Not recorded in December)

Grid: Not recorded.

Non-Grid: One bird was recorded on 7 January about 84 mi. ENE of Johnston Atoll.

White-necked Petrel

(An increase from December of from 1 to 4 birds).

Grid: Not recorded.

Non-Grid: Four single birds were recorded as follows: 115, 250 and 320 mi. SW Oahu and 110 mi. NE of Johnston Atoll.

Juan Fernandez Petrel

(An overall decrease from December of from 42 to 21 birds (19 sightings).

Grid: Decrease of 17: Seven singles were observed at scattered localities - none within 100 miles of Johnston Atoll.

Non-Grid: Decrease of 6: Most of the 12 birds were alone but occasionally one would be associated with a bird of some other species. Records were well scattered between the Grid and 100 mi. SW of Oahu.

Herald's Petrel

(Not recorded in December)

Grid: Not recorded.

Non-Grid: A bird probably of this species was carefully observed on 7 January about 100 mi. ENE Johnston Atoll.

Cook's Petrel

5 13

(Not recorded in December).

Grid: Not recorded.

Non-Grid: One bird, probably this species was observed 17 January about 300 mi. SW Oahu.

Leach's (?) Storm Petrel

(An overall decrease from December of from 42 to 16 birds).

Grid: Decrease of 11: One was seen in the NE corner of the Grid on 8 January.

Non-Grid: Decrease of 17: Most were observed between 40 and 275 mi. SW of Oahu; others were observed at 75 and 250 mi. ENE of Johnston Atoll. Three unidentified storm petrels observed SW of Oahu were probably of this species. Unidentified Procellariiformes

(14 sightings (25 individuals) could be identified only to the general group Shearwater-petrel.) A number of these were probably wedge-tails.

All of these unidentified birds were between Oahu and Johnston Atoll.

Several dark birds were included. The largest group was a flock of 10.

White-tailed Tropicbird

(Overall decrease from December of from 18 to 8 birds (7 sightings).

Grid: Decrease of 2: One bird was seen in the NE corner of the Grid
about 160 mi. S. of Johnston Atoll.

Non-Grid: Decrease of 8: Seven birds were observed at scattered localities between 75 mi. SW Oahu and 75 mi. NE Johnston Atoll.

Red-tailed Tropicbird

(An overall increase from December of from 6 to 14 birds (13 sightings).

Grid: Increase of 7: Nine single birds were seen - three in the SE corner of the Grid; the remainder in the WC part of the grid between 100 and 250 miles of Johnston Atoll. Several were observed sitting on the water and most birds did not fly near the ship. Two unidentified tropicbirds observed at a considerable distance may have been this species.

Non-Grid: Increase of 1: five birds recorded as follows: 400 and 110 (2 birds) SW of Oahu and 125 and 15 mi. NE of Johnston Atoll.

Blue-faced Booby

J. 13

(An overall decrease from December of from 18 to 17 birds (15 sightings).

Grid: Decrease of one; six single, adult birds were observed in the S and E two-thirds of the Grid at distances of from 110 to 275 mi. S and SW of Johnston Atoll. Birds typically showed no interest in the ship. Several were observed diving for food.

Non-Grid: No change in numbers; five birds (3 adult; 2 immatures) were observed between 75 mi. SW of Oahu and Johnston Atoll; three birds were observed within 20 miles N and NW of Johnston Atoll on 15 January. The same day three were observed sitting in a flock of about 15 Red-footed Boobies.

Red-footed Booby

(An overall increase from December of from 22 to 120 (53 sightings).

Grid: Increase of six: seven sightings of nine birds were made including a group of three (1 adult; 2 immatures). Six sightings were in the western half of the grid; one in the SE corner over 275 mi. SW Johnston Atoll.

Seven of the birds observed were immatures, one an adult; 1 unclassified.

Two single unidentified boobies recorded in the NE part of the Grid may have been this species.

Non-Grid: Increase of 91; twenty-two sightings representing 29 birds were observed over a wide area between Oahu and 200 mi. NE Johnston Atoll.

Single immatures came aboard ship on the nights of 5 Jan. and 6 Jan.

Twenty-four sightings representing 81 individuals were seen along a 65 miles line N and ENE of Johnston Atoll on 15 January; all with 45 mi. of the Atoll.

Flocks contained up to 15 birds, largely adults, and most of the flocks were sitting on the water during very calm seas - the first time that I have observed this. Four birds were collected.

Unfortunately age was not always recorded clearly but the fragmentary data is very interesting: of 32 birds seen some distance (over 50 mi.) from Johnston Atoll, six were adult, 20 "immature or subadult", and six were unrecorded. Of 64 birds seen near (most within 50 mi.) Johnston Atoll, the corresponding figures were 30; 17; and 17 (mostly adults from memory).

Five sightings involving eight individuals were too distant for species determination; five of these within 30 miles of Johnston Atoll.

Brown Booby

(No change in numbers from December.)

Grid: Not recorded.

Non-Grid: One was observed about 19 mi. WNW of Johnston Atoll on 15 January. (One was also observed on a buoy just outside Pearl Harbor).

Great Frigatebird

(A decrease from December of from 37 to 16 birds (12 sightings).

Grid: Decrease of eight. Three sightings (5 male birds) were made as follows: SE Corner; NC corner; SW corner, all at distances over 300 mi. from Johnston Atoll.

Non-Grid: Decrease of 13. Four sightings (6 birds) were made within 55 mi. Johnston Atoll. Other single birds were as follows: 95 mi. SW Oahu; about 325 mi. SW Oahu (3 sightings); 210 mi. NE Johnston Atoll.

Pomarine Jaeger

(No change in numbers.) A total of 12 recorded.

Grid: Not recorded in January (2 in December).

Non-grid: Increase of two (largest number seen at any one time considered total for day). Jaegers followed the ship from a few miles outside Pearl Harbor to just before sundown about 45 mi. SW of Oahu. Roger Clapp believes that the increased calling which he noticed was due to increased density. On return a few were again observed just outside the harbor.

Laughing (?) Gull

(Not observed in December).

Grid: Not recorded.

Non-Grid: A single male was collected from the ship on 15 January while approximately 19 mi. NNW of Johnston Atoll.

Gray-backed Tern

(Not recorded during December).

Grid: Not recorded.

Non-grid: Two birds were observed in a mixed flock of terns on 5

January approximately 200 mi. SW of Oahu. On 15 January one bird, first identified as a Sooty Tern, was observed at a distance in front of the ship. The bird alighted on a piece of floating wood and as it floated by was positively identified as this species. In good light this species was recognizable at several hundred yards.

On 18 January a single, "gray-backed" tern was seen at moderate range about 95 mi. SW Oahu. No black cap was seen and the bird may have been another species in winter plumage.

Sooty Tern

(Decrease from December of from 999 to 503 birds (68 sightings).

Grid: None recorded during daylight hours - compared with 93 in December. (See nocturnal observations).

Non-Grid: Decrease of 403; forty sightings, involving over half of all Sooty Terns observed, were recorded within 100 mi. of Oahu. An additional 18 sightings were made between 100 and 300 mi. SW Oahu. Diurnal sightings of Sooty Terns greatly decreased as we approached Johnston Atoll. Flock size ranged from 5 to 70 birds. Almost half of all Sooty Terns flocks were within 100 mi. of Oahu. Immature birds were positively identified in some flocks. Of 25 bird flocks containing Sooty Terns, 10 were mixed feeding flocks; 7 were mixed non-feeding flocks and 8 were non-feeding Sooty Terns only.

In addition three other flocks totalling 19 birds, and a single bird were probably of this species but were too distant for positive identification.

Common Noddy

(Not recorded in December).

Grid: Not recorded.

Non-Grid: Two birds were observed in a small flock of mixed terns on 5 January about 200 mi. SW Oahu; a third was seen following this flock a few minutes later. Three sightings of 11 birds (all in mixed flocks) were observed in an area 75-105 mi. SW Oahu on 18 January.

Fairy Tern

(An increase from December of from 25 to 37 (17 sightings).

Grid: Not recorded.

Non-Grid: Increase of 12. All observations were within 250 mi. SW of Oahu and 13 of the sightings were within 100 mi. of Oahu. Eleven of the sightings were in flocks of mixed species; five of these flocks were obviously feeding.

Bird Flocks

No bird flocks were observed in the Grid in January - compared with six in December. Thirty-three flocks were observed outside the Grid.

Of this number 8 were obviously feeding. Twenty one flocks contained more than one species.

Nocturnal Observations

Nocturnal observations are of limited value for the most part since only a few birds are near enough to the ship for observation. Also only calling birds are usually recorded and most species call very little.

As before unidentified shearwater-petrel types were observed flying across

moonlit areas of ocean. Also tropicbirds (including a positive Red-tailed) and Red-footed Boobies were recorded as was a Black-footed Albatross following the ship.

The most exciting findings, however, were of large numbers of Sooty Terns recorded during some evenings despite a complete absence of this species in the same areas during the day. Figure 1 shows the relative location of each night's observations and the minimum number of birds observed, based largely on call notes. No detailed analysis will be attempted at this time. A minimum of 254 Sooty Terns were recorded during four nights of observation within the grid (see Table V). Some flocks circled the ship but others seemed to be flying toward Johnston Atoll. No reverse morning flight was observed. This situation needs to be explored in much more detail next season.

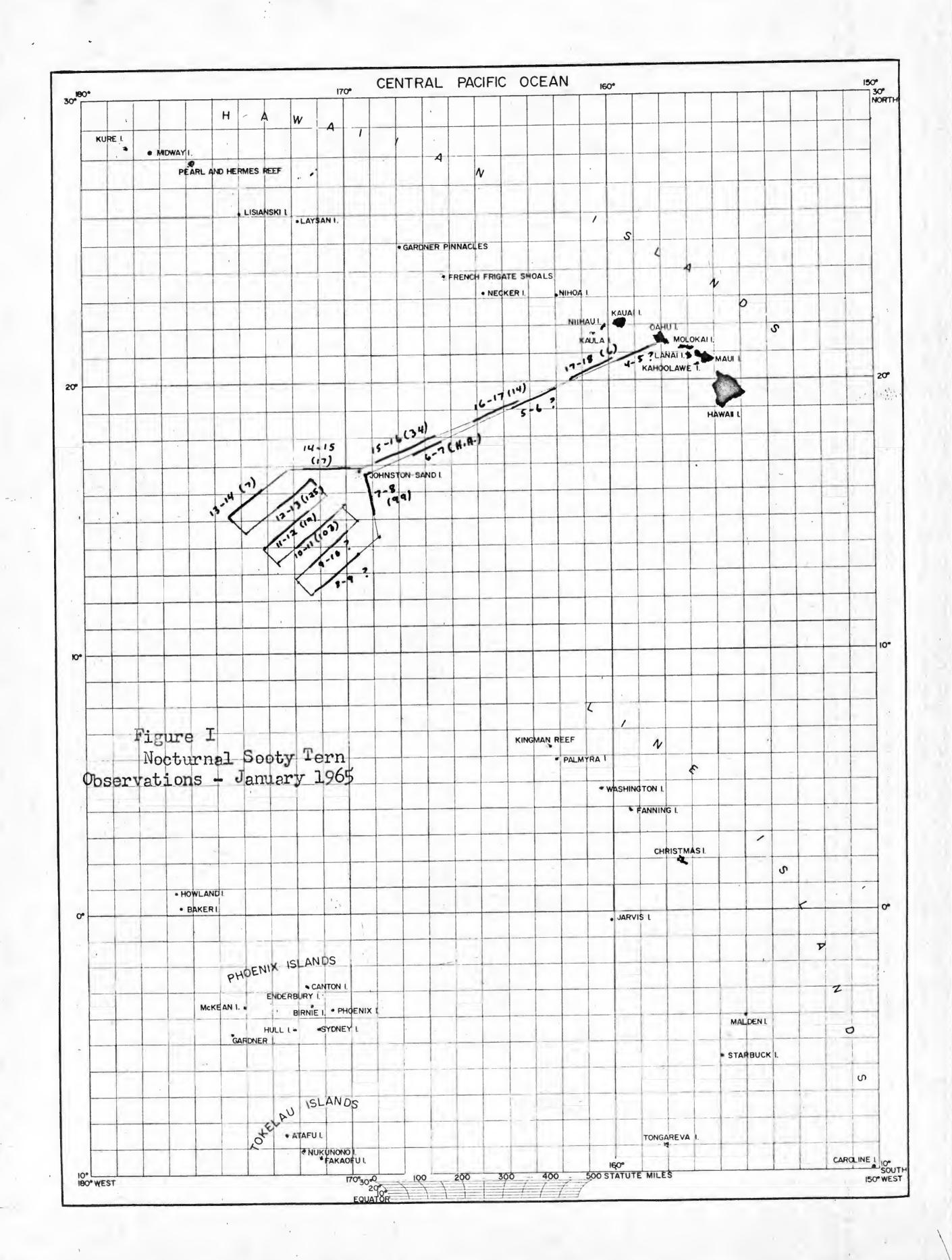


Table I. Daily mileage and observation time (sunrise to sunset) logged during At sea Survey 18, January 1965.

	00		
Date	OUTSIDE Grid (Sunrise to Total Miles Covered	Sunset) Total Minutes	
Jan. 5 Jan. 6 7 8 15 16 17 18	65 87 98 91 1 ₂ 63 101 98 118	593 665 673*(time plus 678 1 hr. ch 256 683 663 663 685 672	
Total	763	5568 (92.8 hr) स्मार-भिन्नेत्रं
	INSIDE Grid (Sunrise to	sunse 6/	

8	Jan.	71 93	425 677
10		82 106	673 688
11 12 13	•	98 116	680 686
14		122	671
Tot	tal	 688	4500 (75 hr)

Table II. Nightly mileage and observation time (sunset to sunrise) logged during At Sea Survey 18, January 1965.

OUTSIDE Grid

Date		number	of Miles	Covered	numbe	r of minutes	
7-8 14-15 15-16 16-17 17-18	Jan.		110 100 130 89 126		764 758 747 744 764		
Total	.1		555		3777	(60.3 hr)	

	INS	DIE Grid		5
10-11 Jan. 11-12 12-13 13-14		126 110 127 103	772 755 766 759	•
Total		466	3052 (50.9	hr)

Table III. Density and population estimates for grid during January 1965

Group Number	er seen	Birds/linear mile	Birds/square Mile	% of Total	Estimated Grid Total
Shearwater- Petrel	26	•038	.019	42	950
Tropicbirds	12	.018	•009	19	450
Tern	0 = -		-	-	- 1
Shorebirds	0	<u> </u>	-	-	
Boobies	17	.024	.012	27	600
Frigates	6	•009	•003	10	150
Flocks	0		-	٠, 🖚	-
Feeding flocks	0		-	-	-
Total	62	•09	.045	•	2250

Table IV. Comparison of bird densities in four grid quadrats, January 1965

Quadrat	Linear miles	Minutes	Miles/ Minute	Birds	Density
East	153	1098	•14	12	.078
South	166	1105	.15	13	.078
West	157	946	.17	20	.127
North	220	1351	.17	17	.077

TABLE V. Summary of Nocturnal Sooty Tern Observations, January 1965

1									
Time	<u>7-8</u>	10-11	11-12	12-13	13-14	14-15	<u>15-16</u>	<u>16-17</u>	<u>17-18</u>
Sunset - 2000	18		0	2-3	. 0	0	8-9	0	0
2001-2100	11-14		1	2.	0	5	7	2	0
2101-2200	1		0	28-38	0 .	5	6-7	. 3	2
2201-2300	4	55-67	0.	34-50	. 0	2	3	1	1
2301-0000	14-16	12-14	1	18-31	2	2, .	5	4-5	0
0001-0100	11-13	13-16	. 0	27-38	2	0	3	1-2	0
0101-0200	12	3	2	5	0	1	1	0	1
0201-0300	11	12	6	3	2	1	0	2	0
0301-0400	9	. 5	5	2	1	1	0	0	0
01:01-0500	6	3	4	4	. 0	0	1	0	1
0501-0600	2	-	0	0	0	0	0	1	1

18

DATE: 18	. 1964 Tota	al Minutes: 67	To	tal Miles //8
1. Total Abun	dance of birds:			
No. Sightings	No. Birds Bir	rds/Sighting Bird	ls/Mile	
(- 1	321	4.79 指	16 272	
II. Abundance	of the Shearwate	er-Petrel-Albatross	Group:	
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
T WT P B	T WT P B	T WT P B	T WT P	B
24 6 3	C 4 7 1	0.41 1:17 6.33 0	all = 20. Pto 20.	
III. Abundanc	e of Tropicbirds:			
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
T RT WT	T RT WT	T RT WT	T RT WT	
_ / /		1,50 200 1,00	(02 007 .01	
IV. Abundance	of Terns:			
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
41	248	6.05	2.10	
V. Abundance	of Shorebirds:			
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
C.	<i>(</i> ************************************			
VI. Abundance	of Boobys:			
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
T BF RF B	T BF RF B	T BF RF B	T BF RF	B
4 - 3 -	- 5 - 4 -	1.20 1.25	c05 (3)	-
VII. Abundance	e of Frigatebirds			
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
Ì	1	1,06	e Cil	
VIII. Abundano	ce of Flocks:			
Total No. To	otal No. Total irds F/Mi.	No. No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
11	55 ,09	2		607

DATE: 1	7 Jan. 191	5 Total 1	Minutes: 6 1	Te	otal Miles 78
1. Total	. Abundance c	f birds:			
No. Sight	ings No. F	sirds Birds	/Sighting Bird	s/Mile	
18	18 167 6.0 1.09			· ·	
II. Abun	dance of the	Shearwater-	Petrel-Albatross	Group:	
No. Sight	ings No. B	irds	Birds/Sighting	Birds/Mile	
T WT P			T WT P B	T WT P	В
10 3 2	- 401	3 2 -	4.0.4.3 1.0 -	- = 41, 13, 8) ——
III. Abu	ndance of Tr	opicbirds:			
No. Sight		Birds	Birds/Sighting	Birds/Mile	
r RT	WT T	RT WT	T RT WT	T RT WT	
					
IV. Abun	dance of Ter	ns:			
No. Sight:	ings No. B	irds I	Birds/Sighting	Birds/Mile	
•7	Ġ	2	. 89	, 63	
7. Abunda	ance of Shor	ebirds:			
No. Sight:	ings No.B	irds I	Birds/Sighting	Birds/Mile	
0					
/I. Abund	dance of Boo	hvs •			
			/		
lo. Sight:	ings No. B		Birds/Sighting BF RF B	Birds/Mile T BF RF	B
1 -	1 - 1 -	- 1 - 1.	6 - 1.0 -	,01 - 101	
'II. Abur	ndance of Fr	igatebirds•			*****
No. Sighti			oinda /Cialatia	D: /M: 7 .	
3	7 ings 110. p.	II us E	Birds/Sighting	Birds/Mile	
			11 0	()	
/III. Abi Total No.	undance of Fi Total No		No Books	No E3:	NT. TO 3.
Clocks	Birds	. Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
2	78	, 02	1	58	, e /

DATE: 16 Jan.	1964 Tota	al Minutes:	T	otal Miles
1. Total Abund	dance of birds:			
No. Sightings	No. Birds Bir	ds/Sighting Bird	ds/Mile	
Ġ	1 -	J. J.	18	
II. Abundance	of the Shearwate	er-Petrel-Albatross	Group:	
No. Sightings		Birds/Sighting	Birds/Mile	
T WI P B	T WT P B	T WT P B	T WT P	В
1 0 -	2 1	1.0.1:6	. 32 . 01 _	
III. Abundance	e of Tropicbirds:			
No. Sightings	The state of the s	Birds/Sighting	Birds/Mile	
T RT WT	T RT WT	T RT WT	T RT WT	
0				
IV. Abundance	of Terns:			
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
3	JA 12	4.0	· / -	
V. Abundance o	of Shorebirds:		······································	
No. Sightings	·	Birds/Sighting	D: 1 /M: 1	
G	NO. DII da	prrosystanting	Birds/Mile	_
VI. Abundance	of Boobys:			
No. Sightings T BF RF B	No. Birds	Birds/Sighting	Birds/Mile	
		T BF RF B	T BF RF	B
205-	- 1 1	1.5 - 1.5	.03 - 03	
VII. Abundance	of Frigatebirds	•		
No. Sightings	No. Birds	Birds/Sighting	Birds/Mile	
L.	/	1 0	. 1	
VIII. Abundanc	e of Flocks:			
Total No. To	tal No. Total I	No. No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
1 9	, c 1	1 3	7	C 1

DATE:	15 Jan	. 1965	Total Mi	nutes:	68	3	_ Total	Miles	6.
1. To	otal Abund	lance of bin	ds:						
No. S	ightings	No. Birds	Birds/S	ighting	g Bird	s/Mile			
<i>-</i>	35	141	4. 0	3		222			
II. A	Abund a nce	of the Shea	rwater-Pe	trel-Al	.batross	Group:			
		No. Birds			ghting	Birds/M	ile		
T W	T P B	T WT P	B T	TW	Р В	T WT	Р В		
/ -		1		0		. 016-			
III.	Abundance	of Tropick	irds:						
The same of the sa	ightings	No. Birds	В:	irds/Si	ghting	Birds/M	ile		
r Ri		T RT	WT T	RT	WT	T RT	WT		
1	1 -	1 1		0 1.0		. 16 01	(,		
IV. A	Abundance	of Terns:	,						
				~ / <i>~</i> .		/			
NO. 51	ightings	No. Birds	Bij	rds/Sig	hting	Birds/M	ile		
,	_7	46		6,5		; */	3		
I. Ab	oundance o	f Shorebird	S:						
No. Si	ightings	No. Birds	Bi i	ds/Sig	hting	Birds/Mi	ile		
	0			- 216					
T. A	Abund a nce	of Boobys:							
To. Si	ightings	No. Birds	Bir	ds/Sig	ht.i nø	, Birds/Mi	le		
BF			F B T	-	RF B	T BF	RF B		
9 4	22 1	906 7	8 1/3.1	1.5	3.5 1.0	1,45,0	5 1.25		
II.	Abundance	of Frigate			,				
lo. Si	ghtings	No. Birds	Bir	ds/Sig	hting	Birds/Mil	e		
•	2	2		ha O		. 0 .3	(
/III.	Abundance	e of Flocks	•						
Total Tlocks	No. To	tal No. T	otal No. /Mi.	No. For	eeding s	No. Feedi Birds	_	o. Feedin	ıg
8		71		2		38		. 1 3	

7 1 3 g o cont

SI-MNH-955a Rev. 4-9-64

	E: 14 Janu	my 1965 To	tal Minutes:	Ti It	otal Miles
1.	Total Abund	dance of birds:			
No.	Sightings	No. Birds B	irds/Sighting Bir	rds/Mile	
	4	4	1, 0	. 0 3 3	
II.	Abundance	of the Shearwa	ter-Petrel-Albatros	ss Group:	
THE OWNER WHEN	Sightings	No. Birds	Birds/Sighting	g Birds/Mile	
T	WT P B	T WT P B	T WT P I	B T WT P	B
3	- 1 -	3 - 1 -	1.0 - 1.0 -	.024 - :00	8
III	. Abundance	of Tropicbird	3 :		
-	Sightings	No. Birds	Birds/Sighting	g Birds/Mile	
<u> </u>	RT WT	T RT WT	T RT WT	T RT WT	
)			general Property of the Control of t		
.V.	Abundance	of Terns:			
0.	Sightings	No. Birds	Birds/Sighting	Birds/Mile	
	0				
7 ,	Abundance o	f Shorebirds:		•	
ГО .	Sightings	No. Birds	Birds/Sighting	Birds/Mile	
	0				
I.	Abundance	of Boobys:			
0.	Sightings	No. Birds	Birds/Sighting	Birds/Mile	
	BF RF B	T BF RF	B T BF RF B		B
	- 1 -	1 - 1 -	- 1.0 - 1.0 -	005 - ,00	8
5			ls:		
	. Abundance	of Frigatebiro			
II.	. Abundance Sightings	of Frigatebiro No. Birds	Birds/Sighting	Birds/Mile	
II.				Birds/Mile	
[O.	Sightings O	No. Birds		Birds/Mile	
/II]	Sightings O Abundanc	No. Birds —— e of Flocks:			No. Feeding

DAT	E: 13 Janua	m 1964 To	tal Minutes:	Tó Tota	al Miles // (
1.		dance of birds:			
			· - 1 / C : - 1	/M-2 7	
No.	Sightings	No. Birds B	irds/Signting Bil	rds/Mile	
	15	19	1,26	s /	
II.	Abundance	of the Shearwa	ter-Petrel-Albatros	ss Group:	
No.	Sightings	No. Birds	Birds/Sighting	g Birds/Mile	
T	WT P B		T WT P	B T WT P	B
8	1 4 -	10 15	1.25 1.0 1.25	-,005/,001/,013	
III	. Abundance	e of Tropicbird	S:		
No.	Sightings	No. Birds	Birds/Sighting	g Birds/Mile	
I	RT WT	T RT WT	T RT WT	T RT WT	
5	4 -	5 4 -	1.0 1.0 -	042,074	_
TIT	۸٦. ٦	- 0. III			
IV.	Abundance	of Terns:			
No.	Sightings	No. Birds	Birds/Sighting	Birds/Mile	
-	0				
V.	Abundance d	of Shorebirds:			
No.	Sightings	No. Birds	Birds/Sighting	Birds/Mile	_
	0				
VI.	Abundance	of Boobys:			
No.	Sightings	No. Birds	Birds/Sighting	Birds/Mile	
T	BF RF B				B
2	- 2 -	2 - 1.0	- 1.0 - 1.0	- ,017 - 1017	
VII	. Abundance	e of Frigatebir	ds:		
No.	Sightings	No. Birds	Birds/Sighting	Birds/Mile	
	1	2	2.0	.	
VII	I. Abundan	ce of Flocks:			
Tot	al No. To	otal No. Tota	l No. Feeding	9	No. Feeding
TTC	CAS B.	irds F/Mi	. Flocks	Birds	F/MI.

DATE:	12 Janus	ary 196	Y Total	L Minutes		J	Total Miles
1. To	tal Abund	lance of	birds:				
No. Sig	ghtings	No. Bir	ds Bird	ls/Sighti	ng Bird	s/Mile	
	1	13		1.18		13	
TT	7		N2		A77	~	
		or the S	ne arwa tei		Albatross	,	
No. Sig	ghtings P B	No. Bir	ds P B	Birds/	Sighting P B	Birds/Mile T WT P	
4 3		4 3		1.0 1.0		,04,03	
III. A	Abundance	of Trop	oicbirds:	•	· · · · · · · · · · · · · · · · · · ·		
No. Sig	ghtings WT	No. Bi		Birds/	Sighting WT	Birds/Mile T RT W	$\overline{ ext{T}}$
3 2		3 =	2 -	1.0 1.	0 -	.03 .17	
IV. At	oundance	of Terns	•				
No. Sig	ghtings	No. Bir	ds	Birds/S	ighting	Birds/Mile	
	0						
V. Abu	ınd a nce o	f Shoreb	irds:				
No. Sig	ghtings	No. Bir	ds	Birds/S	ighting	Birds/Mile	
	0			_			
VI. Ab	undance	of Booby	S :				
	ghtings	No. Bir	ds	Birds/S	ighting	Birds/Mile	
T BF	RF B	T BF	RF B	T BF	RF B	T BF R	F B
4 1	3 -	6 1	5 -	1.5 1.0	1.7 -	i U of i i l	3
VII. A	Abund a nce	of Frig	atebirds:				
No. Sig	ghtings	No. Bir	ds	Birds/S	ighting	Birds/Mile	
	0						
VIII.	Abundanc	e of Flo	cks:				
Total N Flo c ks		tal No. rds	Total N F/Mi.	o. No. Floo	Feeding cks	No. Feeding Birds	No. Feeding F/MI.
0							

DAT.	E: Jan	any 11.	1964	Total	Minutes:	0652	1820	I	btal	Miles_	100
1.	Total Ab	undance	of bir	ds:							
No.	. Sighting	s No.	. Birds	Bird	s/Sightir	ng Bird	ls/Mile				
	6		6		1,0		. 0 6				
II.	Abund a n	ce of t	the Shea	ırwater	-Petrel-A	lbatross	Group	•			
Control of the last of the las	Sighting	s No.	Birds		Birds/S	Sighting	Bir	ds/Mile	· · · · · · · · ·		
T	WI P	BT	WT P	В	T WT	P B	T	WT P	В		
4	12	- 4	12		1.0 1.0	1.0 -	, J		-		
III	. Abunda	nce of	Tropick	irds:							
No.	Sighting	s No	. Birds	}	Birds/S	Sighting	Bir	ds/Mile			
Ţ	RT WT	T	RT	WT	T RT	WT	T	RT WI	1		
0							\$				
IV.	Abundan	ce of 1	erns:								
No.	Sighting	s No.	Birds		Birds/Si	ghting	Bir	ds/Mile			
A24	O										
V.	Abundance	e of Sh	orebird	.S:							
No.	Sighting	s N o.	Birds		Birds/Si	ghting	Bir	ds/Mile			
	\mathcal{C}										
VI.	Abundan	ce of B	Boobys:								
No.	Sighting	s No	Birds		Birds/Si	ahtina	Rin	ds/Mile			
T	The second secon	B [*] T		F B	T BF	RF B	T	BF RF	B		
1	, -	- 1	1 -		1.0 1.0		. 00 1	. 6 ()			
VII	. Abunda	nce of	Frigate	birds:							
No.	Sighting	s No.	Birds		Birds/Si	ghting	Bird	s/Mile			
	0				_	-	-				
VII	I. Abunda	ance of	Flocks	:							
	al No. cks	Total Birds	No. T	otal No	o. No. Floc	Feeding ks	No. 3	Feeding s		o. Feedi	ng

DATE:	Joennon	, 10	1965	Total	Minu	tes:	064%	- 180	0	_ To	tal Mil	es8
1. To	t a l Abund	ance	of bird	ds:								
No. Si	ghtings	No.	Birds	Bird	ls/Sig	hting	Bir	ds/Mil	.e			
	5		5		1			,06	-			
II. A	bundance	of t	he She a :	rwater	-Petr	el-Al	b a tros:	s Grou	p:			
No. Sia	ghtings	No.	Birds		Bir	ds/Si	ghting	Bi	rds/M	ile		
	The second secon		WT P]	В	T	WT	P B		WT	P	B	
1 7		/	1 -	_	1. 0	1.0		ر م	1,0	, —		
III. A	Abund a nce	of	Tropicb	irds:								
No. Si	ghtings	No	. Birds		Bir	ds/Si	ghting	Bi	rds/M	ile		
T RT	WT	T	RT	WT	T	RT	WT	${ m T}$	RT	WT		
0												
IV. A	bundance	of T	erns:									
No. Sig	ghtings	No.	Birds		Bird	s/Sig	hting	Bi	rds/M	ile		
C)						-					
V. Abı	und a nce o	f Sh	orebirds	5:								
No. Sig	ghtings	No.	Birds	,	Birda	s/Sig	hting	Bi	rds/Mi	ile		
	O											
VI. Ak	oundance	of B	oobys:									
No. Sig	ghtings	No.	Birds		Birds	s/Sig]	hting	Bi	rds/Mi	ile		
T BF	RF B⁴	Ţ	BF RI	r B	T 1	BF]	RF B	T	BF	RF	В	
3 2	-	3	2 -		to	1.0	Normalia - Indian	0	3 0.0.2.			
VII. A	Abund a nce	of]	Frigatek	oirds:								
No. Sig	ghtings	No.	Birds		Birds	s/Sigl	nting	Bir	ds/Mil	Le		
	1		1			1			,0/			
VIII.	Abundanc	e of	Flocks:								6	
Total I Flocks	No. To	t a l 1	No. To	tal N'Mi.		No. Fe	eeding	No. Bir	Feedi	ng	No. F	eeding
20%			-				-	- D-1-1			1/111.	

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA DAILY OBSERVATIONS SUMMARY

677

DAT	E: January	9,1965	Total	Minutes:	705 (0648-180	(f) Total	l Miles
1.	Total Abund	dance of	birds:					
No	Sightings			/Giahtina	r Bind	c/Milo		
INO .		_	,		g bira			
	4	8		2		.09		
II.	Abundance	of the S	hearwater-	Petrel-Al	Lb a tross	Group:		
No.	Sightings	No. Bir	ds	Birds/Si	ghting	Birds/M	ile	
T	WT P B	T WT	Р В	T WT	Р В	T WT	P B	
0								
III	. Abundance	e of Trop	icbirds:					
No.	Sightings	No. Bi	rds	Birds/Si	ghting	Birds/M	ile	
Ţ	RT WT	T RT	WT	T RT	WT	T RT	TW	
3	3 /	3 3	3 /	1.0 1.0	1.0	.03.0	1 .01	
IV.	Abundance	of Terns	5 .					
No.	Sightings	No. Bir	ds	Birds/Sig	ghting	Birds/M	ile	
	0		-					
V.	Abundance d	of Shoreb	irds:					
No.	Sightings	No. Bir	ds	Birds/Sig	ghting	Birds/M	ile	
	0							
	1.							
VI.	Abundance	of Booby	S:					
W. C. C.	Sightings	No. Bir		Birds/Sig	ghting	Birds/M	ile	
T	BF RF B	T BF	RF B	T BF	RF B	T BF	RF B	
2	1 1 -	2 1	1 - 1	.0 1.0	1.0	.05.01	,01-	Transcription
VII	. Abundance	of Frig	atebirds:					
No.	Sightings	No. Bir	ds	Birds/Sig	ghting	Birds/Mi	le	
	2	3		1,50	S	. , 03		
VII	I. Abundand	ee of Flo	cks:					
		otal No.	Total No	. No. F	eeding	No. Feed	ing I	No. Feeding
To The second	cks Bi	irds	F/Mi.	Flock	- C	Birds	T	F/MI.

DAT	E: Januar	, 8,	1965	[Total	l Mir	nutes:	063	4 18 - 17	305 €	55	To:	tal Miles_	112
1.	Total Abund	dance	e of bi	.rds:									
No.	Sightings	No.	. Birds	Bird	ls/Si	ightin	g I	Birds	s/Mile				
	9	·····	9		/			(0,08				
II.	Abundance	of t	the She	arwater	c-Pet	rel-A	lb a tı	coss	Group	•			
No.	Sightings	No.	. Birds		Bi	rds/S	ighti	ng	Bird	ls/Mi	le		
T	WI P B	T	WT P	В	T	WT	P	В	T	WT	P	B	
6	/ 3 -	6	13	-	/	/	1	_	.05	, 01	*03		
III	. Abundance	e of	Tropic	birds:									
No.	Sightings	No	. Bird	S	Bi	rds/S	ighti	ng	Bird	ls/Mi	.le		
Ţ	RT WT	T	RT	WT	T	RT	WT		Т	RT	WT		
/	- 1	/		1	1.	0 —	1		.01	-	. 0	1	
IV.	Abundance	of T	erns:										
No.	Sightings	No.	Birds		Bir	ds/Si	ghtir	ıg	Bird	ls/Mi	le		
	0						_		-				
V.	Abundance c	of Sh	orebir	ds:									
No.	Sightings	No.	Birds		Bir	ds/Si	ghtin	g	Bird	ls/Mi	le		
	0								_				
VI.	Abundance	of B	Boobys:										
No.	Sightings	No.	Birds		Bir	ds/Si	ghtin	.g	Bird	s/Mi	le		
T	BF RF B	- Alle	BF :	RF B	T	BF	RF	В	T	BF	RF	B	
2	1 - +	2	l		1.0	1,0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		.02	, 0 1	-	_	
VII	. Abundance	of	Frigate	ebirds:					٠		*		
No.	Sightings	No.	Birds		Bir	ds/Si	ghtin	g	Birds	/Mil	е		
	0												
VIII	I. Abundanc	e of	Flock	S *				-			··· \ ··· =		
	al No. To	tal rds	No.	rotal N F/Mi.	0.	No. 1		ng	No. F Birds		ng	No. Feedi F/MI.	ng
C													

SMITHSONIAN INSTITUTION DIVISION OF BIRDS T SEA DAILY OBSERVATIONS SUMMARY

AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Jan. 8 /965 Total Minutes: 256 Total Miles Total Abundance of birds: No. Sightings No. Birds Birds/Sighting Birds/Mile 1.0 0.05 II. Abundance of the Shearwater-Petrel-Albatross Group: No. Sightings No. Birds Birds/Sighting Birds/Mile T WT P B 0 2 0 1.0 - 1.0 - 0.05 - .05 2 0 2 0 III. Abundance of Tropicbirds: Birds/Sighting Birds/Mile No. Sightings No. Birds WT IV. Abundance of Terns: Birds/Sighting Birds/Mile No. Sightings No. Birds V. Abundance of Shorebirds: Birds/Sighting Birds/Mile No. Sightings No. Birds 0 VI. Abundance of Boobys: No. Sightings No. Birds Birds/Sighting Birds/Mile BF BF RF B RF BF RF RF B 0 Abundance of Frigatebirds: Birds/Sighting No. Sightings No. Birds Birds/Mile 0) Abundance of Flocks: VIII. Total No. Total No. No. Feeding No. Feeding Total No. No. Feeding Flocks Birds F/Mi. Flocks Birds F/MI. 0

DATE: Jan. 8 1964 Total	Minutes: 42	5 Tot	al Miles 7/
1. Total Abundance of birds:			
No. Sightings No. Birds Bird	s/Sighting Birds	/Mile	
7 7	1.0 0.	1	
II. Abundance of the Shearwater	-Petrel-Albatross	Group:	
No. Sightings No. Birds	Birds/Sighting		
T WT P B T WT P B	T WT P B	T WT P	<u>B</u>
4 1 1 - 4 1 1 -	1.0 1.0 1.0 -	,06,01,01	
III. Abundance of Tropicbirds:			
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
T RT WT T RT WT	T RT WT	T RT WT	
1 - 1	1.0 - 1.0	.0101	
IV. Abundance of Terns:			
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
0			
V. Abundance of Shorebirds:			
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
0			
VI. Abundance of Boobys:			
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
T BF RF B* T BF RF B	T BF RF B	T BF RF	B
2 1 2 1	1.0 1.0	,02 ,01 -	_
VII. Abundance of Frigatebirds:			
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	_
0			
VIII. Abundance of Flocks:			
Total No. Total No. Total N Flocks Birds F/Mi.	o. No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
0 0 —			

SMITHSONIAN INSTITUTION DIVISION OF BIRDS

AT SEA DAILY OBSERVATIONS		91
Total Minutage 678	1800	9:

	AT SEA DAILI OBSERVAT.		91
DATE: Jan 7, 1965	Total Minutes: 660 (9700-1900 To	tal Miles 9
1. Total Abundance of bi	rds:		
No. Sightings No. Birds		ds/Mile	
18 25	1-37 1.45 e	0.32	
II. Abundance of the She	arwater-Petrel-Albatross	Group:	
No. Sightings No. Birds T WT P B T WT P	Birds/Sighting	The same of the sa	
T WT P B T WT P	B T WT P B - 123 250 1.0 1.30 2.33	OH 0.07 0:07	В
III. Abundance of Tropic			
No. Sightings No. Birds T RT WT T RT	Birds/Sighting WT T RT WT	Birds/Mile T RT WT	
2 1 1 3 1	2 1.5 1 2	0.03 0.01 0.0	O Q
IV. Abundance of Terns:			
	T: 1 /G: 1		
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
	2	0.02	
V. Abundance of Shorebire	ds:		
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
0 —			
VI. Abundance of Boobys:			
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
	RF B T BF RF B	T BF RF	B
2 - 102-	2 - 2.0 - 2.0 -	0.02 7.02	<i>-</i>
VII. Abundance of Frigate	ebirds:		
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
2 4	2	0:04	
VIII. Abundance of Flocks			
Total No. Total No. 7	otal No. No. Feeding Mi. Flocks	No. Feeding Birds	No. Feeding F/MI.
	1 70010	777 (1)	T / I'I L •

SMITHSONIAN INSTITUTION DIVISION OF BIRDS

1 hr. Time charge .

	AT SEA DAILY OBSERVATION		98
DATE: Jan 6, 1965	Total Minutes: 657 (6	728 - 1843 Total 1	Miles 95
1. Total Abundance of bin	rds:		
No. Sightings No. Birds	Birds/Sighting Birds	s/Mile	
23 26	1.12	127	
II. Abundance of the Shee	arwater-Petrel-Albatross	Group:	
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
T WT P B T WT P	B T WT P B	T WT P B	
15 5 3 - 18 8 3	1.20 1.40 1	0,19 0,08 0,03	
III. Abundance of Tropick	oirds:		
No. Sightings No. Birds			
T RT WT T RT	WT T RT WT	T RT WT	
2 / 2 /		0,03 0.01 0.01	
IV. Abundance of Terns:			
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
0 —			
V. Abundance of Shorebird	ds:		
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
0 —			
VI. Abundance of Boobys:			
No. Sightings No. Birds	Birds/Sighting	Dinda/Mila	
	RF B T BF RF B	Birds/Mile T BF RF B	
5 1 4 - 5 1 4	4 - 1 1 1 -	0.05 0.01 0.04 -	
VII. Abundance of Frigate	ebirds:		
No. Sightings No. Birds	Birds/Sighting	Birds/Mile	
0			
VIII. Abundance of Flocks			
	Cotal No. No. Feeding	No. Feeding No.	Feeding
Flocks Birds F	F/Mi. Flocks	Birds F/M	II.

DAT	E: 9	anna	, 5,	196:	5	Tot	al Mi	nutes:	665	5 (07	720-18	725	OT (tal :	Miles_	88	
1.		al Abun															
No.	Sigh	ntings	No	. Bi	rds	Bi	.rds/S	ightin	g]	Birds	s/Mile						
	63	3		24.	5		3, 8	79		2	.78	-					
		ınd a nce	of -	the	Shea	rust	er_De	trel-A	lhati	nog g	Groun	•					
											_	•					
		rtings Pt Bu					B:	irds/S WT	ight:	ing B		WT	le P	B			
		50					1.48	1.56	; 1	0	0.80	0.57	0.06				
		undanc		,						7							
		ntings						irds/S	i øht.	ina	Rin	as/Mi	ا ۵		- 1		
T		WT	T	R'		WT	T		WT		T	RT	WT				
2	-	2	2	2 -	-	2	Je	0 -	1,	0	.02		0.0	2			
IV.	Abu	ndance	of :	lern:	S:												
No -	Sigh	tings	No	Rin	rds		Rin	rds/Si	chtir	n (r	Rin	ds/Mi	10				
	12		. 110	160			1011.1	13.5		-18		1.82					
					~							6-8-					
V.	Abun	dance (of Sh	norel	oird	S:											
No.	Sigh	tings	No.	Bij	rds		Bir	rds/Si	ghtir	ng	Bir	ds/Mi	le				
	0	·			_								_				
VI.	Abu	ndance	of F	Booby	ys:												
No.	Sigh	tings	No.	Bir	rds		Bir	ds/Si	oht.ir	າຕ	Rin	ds/Mi	le				
ľ	BF	RF B	-	BF	R	F B	7	BF	RF	В	T	BF	RF	B			
9	3	6 -	12	3	· ·	7 -	1.33	1	1.50	4	0.1/	0.04	0.08				
VII	. Ab	und a nce	e of	Frie	gate	bird	S:										
No.	Sigh	tings	No.	Bir	ds		Bir	ds/Si	ghtin	ıg	Birds	s/Mile	e				
	0		-							<u> </u>				-			
VIII	Δ	bundand	e of	File	oka				· · · · · · · · · · · · · · · · · · ·		- 4 4						
	al No	. To	tal Irds		T^{α}		No.	No. I		ng	No. I	Feedir	ng	No . F/N	Feedi:	ng	
10	7		69			08		2		-,	07				7 7		•

W X W

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA DAILY OBSERVATIONS SUMMARY

To surget

DATE: 4	January 1	965 Tota	.l Minutes:	5	93	T	otal Miles 65
1. Total	Abundance of	birds:					
No. Sighti	ings No. Bi	rds Bir	ds/Sighting	g Bird	s/Mile		
24	70		2,90		1,08	-	
II. Abund	lance of the	Shearwate	r-Petrel-Al	.b a tross	Group:		
No. Sighti T WT P	ngs No. Bi	rds P B	Birds/Si T WT	ghting P B		s/Mile WT P	B
5 3 0	0 10 4	0 0	210 1,33	0 0	,10	,06 -	
III. Abun	ndance of Tro	picbirds:					
No. Sighti T RT W		irds T WT	Birds/Si T RT	ghting WT		s/Mile RT WT	
2 0 .	2 2	0 2	1,0 -	1.0	. 63	0	3
IV. Abund	ance of Tern	S:					
No. Sighti	ngs No. Bi	rds	Birds/Sig	hting	Bird	s/Mile	
9	4	6	5:1			,71	
	nce of Shore	,	Birds/Sig	hting _	Bird	s/Mile	
VI. Abunda	ance of Boob	vs •				, , , , , , , , , , , , , , , , , , , ,	
No. Sighti I BF R	ngs (No. Bi		Birds/Sig T BF	hting RF B		s/Mile BF RF	В
9 1	70/12 1	90	j, š		-	101.14	· way
VII. Abun	dance of Fri	gatebirds		1			
No. Sightin			Birds/Sig	ht.i nø	Birds	/Mile	
	Ô		222 (22) 228	-	DITUO	TILL	
0							
VTTT. Abiii	ndance of Fl	ocke.					
VIII. Abur Total No. Flocks	ndance of Flo Total No. Birds		No. No. Focks	eeding s	No. Fe	eding	No. Feeding F/MI.

REMARKS:

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE		anluary													
TIME	LAT N	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
	20 28	159 57	Bled	10	1010	411	7/	191	6	(250 - 1	\$7.	11	320	247
0100				14	1010	301	51	91			240-1	83	9	300	
0300	30 33	160 14			1010	oug of	69	9/	7	/ /	21/0.1	8 3	8	300	
0,1+00	50 30	160 16		10	1009	90	68	82	B	1/7	200-2	82	10	m) 75	
****	50 17	160 28		10	11009	my s	68	2 %	6		m Da . 3	\$ 9	10	378	
0600	50 14	160 35		163	1009	76/	70	8-6	٤	6-3	20000		12	13 1/6a	V
0700	20 11	16 43	2	19 3	1008	75	-71	91	6	/:	2 6 4 6 3	Er i	9	5 2	247
Factor and the second	20 08	160 45	BKN	10	1000	75	71	86	9		170-2 2	81	11	225	3H5
0900	30 04	160 57		10	1007	75	71	86	9		170 - 2	81	10	5 35	345
1000	20 03	161 05		1	1007	75	71	86	9	5	1170 - 2	R i	12	225	545
1100	2000	16/ 12		10	1007	76	72	8 1	9		170 - 2	81	11	204	345
1200	19 56	16/3/		10	18306	7 7	73	. 87	9		180 = 2	81	11	34)	3.45
1300	19 52	11/1 38		9	1005	78	74	87	9		180 - 2	81	10	200	543
1.400	19 4/6	11/1 35		7	1204	7%	74	201	8		160 - 5	81	11	306	
1500	19 46	161 42			1004	78	72	8 -	8		180 - 2	ę١	11	200	
1600	19 4	1 161 52		10	10.04	79	76	7	9		180-2	81	25+	230	
1700	19 39			10	1005	79	76	91	8		180-5	85	254	2-35	
1800	19 35	162 04		///_	1005	79	75	877	8.	5	130-2	8.3	8	240	
1900	19 34			7.5	Inela	791	75	87 -	8		180-3	17 .	11 -	240	
2000	19 31	162 20		R	1000	79	75	87	8	5	150-2	5.5	30	245	
2100	19 36			6	1500	79	7/2	91	9		180-5	82	20	245	
2200	19 33	- 162 35		5	100 9	79		ai	9		180-2	8-2	5	245	
2300.	19 18	162 43		13	1019	79	76	ql	9	16,6	185-2	28	5	270	
2400	19 13	5 162 51	V	113	1007	79	76	91	9		180-2	52	5	270	1 342
Control of the second	DEM	\DKC.				, , , , , , , , , , , , , , , , , , , ,									

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 6 JAN 1965

	TIME	LAT		LONG W	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
- 1	0100	19	10	162 59	BRU	10	100%	071	68	90	9	9	305-2	81	9	3/6	243
3	0200	19	05	163 AL		10	1006	70	67	90	Ç)	4	305 - 2	8/	9	365	
6	0300	19	01	163 14		10	10010	70	67	90	Cs .		305-2	81	8	315	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0)+00	18	38	163 22		8	1006	75	71	86	q	/	305-2	71	10	315	
T.	0500	18	54	143 30		10	1000	74	68	82	5		3.00-2	8/	8	315	
E	0600	18	5/	163 39		10	100	74	68	82	197		302-5	8 1	8	315	
X	0700	18	4/8	163 46	V	10	100h	74/	68	7.2			350 - 2	81~	8	315	
J 21	0800	18	45	163 52	507	10	100 6	74	70	86	4		780-2	81	8	330	1,
70/0	0900	18	42	164 02		16	1007	76	72	87	2	/	300-2	8 1	8	30	V.
C 3	1000	18	38	164 11		, ()	108	76	72	8 -	2		300 - 2	81	8	330	343
0 50	1100	18	34	164 19		12	1000	77	73	57	2		250-2	82	5	330	246
100	1200	18	30	164 39		17	1000	7 -7	73	87	2		300-2	82	5	330.	546
40	1300	18	27	16:1 36		12	1000	7	74	83	2		300 - 2	82	10	346	248
6	1.400	18	24	1.69 45		1.,	150 G	70	7 2/	83	2		300 - 2	87	10	340	A
1	1500	18	2/	164 54		12	10059	~ (*	74	· · · · · · · · · · · · · · · · · · ·	2		300 - 2	8.2	10	340	
03	1600	18	18.	165 02	95-	12	1005	70	74	83	2	(300-2	82	10	340	
W)	1700	18	15	165 11		12	13.08	* 1 1	74	91	4		300 - 2		10	340	
2 2	1800	18	12	165 33		12	1000	777	74	91	4.		300 -2	12	10	320	¥
1. 1 Co	7000	18	09	165 32		12	1009		72	g 7	4		300 - 2	81	10	320	248
7000	2000	18	06	165 41		10	1000		72	87	4		310 -2	72	_5	330	546
2007	2100	18	01	165 51		10	1000		72	87	4		310-2	82	12	075	1
	2200	17	57	166 01		10	1010		72	8.7	4		310-7	82	/0	075	
	2300	17	22	166 11		10	1010	-76	72	77	4	1	310 -2	82	10	330	V
	2400	17	48	16431	1	10	1 - 2	76	72	87	4		310 -2	52-	10	300	246
			REMARI	KS:								•					

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

X

1965

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
		11// >/	SCT	10	1008	72	69	91	4		000 - 2	81	9	010	246
0100	17 44	166 31	The second secon	10	1009	72	1.9	59 1	4		000 - 2	81	1.7	0/10	//\
0300	17 36	166 51		10	1009	77	69	9/	4		355-2	81	10		
0,100	17 32	167 02		10	1009	72	69	9	1		000-2	81	Q	0/0	
0500	17 38	167 12	And the state of t	10	1009	72	69	q	3		000-0	8	11	010	
0600	17 33	167 23		10	1009	73	69	86	3		350- 2	8	13	000	
0700	17 21	167 34		10	1009	73 ~	70	9/	7		350- 2	5' ~	10	340	
0800	17 17	167 45	And the state of t	10	1010	73	70	91	7		350- 2		13	300	
0900	17 15	169 50		10	1011	74	71	91	3		340-2		10	300	
1000	17 /2	167 56		10	1011	76	73	87	3		340- 3		10		
1.100	7 10	168 02		10	100%	7 7	74	91	3		340- 2		6		
1200	n 58	168 08		10	1007	37	74	91	3		340-2	8-1	<u>(</u>	j	
1300	17 65	161 17		10	1005	87	84	93	3		045-2	4	3		
1.400	16 57	168 26	CLF	10	1000	88	85	92			1045-3	85		3.0	
1500	16 57	168 35		10	2005	87	¥ 3	5			045-3	,)		3.	
1600	16 53	168 44		10	1000	8.7	5.2	8			045-3	55			3/1/
1700	16 48	168 50		10	1000	56		88	1		045-2	5.2		350	246
1800	16 9	169 00		10	1000	56	X	7.5			0 4		5	2	555
1900	16 41	169 10-		10	1000		82	35	A STATE OF THE PARTY OF THE PAR		050	- 9	3	235	168
2000	16 34	169 17		18	1008	63	79						2	152	100
2100	16 26	169 15	And the second s	10	100 9		77	91			150-		5	3.	
2200	16 18	169		10	1007	77	74	7	5		115. 3		2	• • •	
2300	16 00	169	102	10	1208	74	71	9/				<u> </u>	5	170	168

REMARKS:

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE 8 301. 1965

	* J	1691: X			X										
TIME	IAT N	LONG W	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD
0100	15 52	168 07	CIR	10	1008	74	71	91	-	Dra.	1-1-	8	8	3/10	168
0200	15 43	168 05		10	100 7	73	69	86	1		175-2	3.4	6	200	
0300	35	16803		10	1201	73	69	86	- 5		175-3	7 21	6	700	
01+00	13 25	16801		10	100 7	76	73	2 "7	2		175-2	4 4	12	356	
0500	15 17	168 08		10	1247	76	2.	5 7	4		175- 9	1	10	ئ بر ز	
0600	15 10	168 56		10	1007	71.	7.2	5 7	4		175-9	84	12/	300	
0700	15.01	168 -3		10	1047	761	77	8 7	4		175- 2	V	12	300	
0800	14 53	168 51		10	1007	56	-) -	3 7			175-7	F L'	12	5 6	
0900	14 44	168 49		10	1807	76	.72	87			175- 2	H	1 7	1 3 9	
1000	14 35	168 - 7		10	1007	76	7.7	87			175-3		2		
1100	14 26	168 45	V	10	100 7	76	7.3	87	4		173-2	34	13		
1200	14 18	11/28 20	507	10	1006	56	8.5	88			11:-3	8 4	1 00	0	
1300	14. 11.	1108 -		10	100 0	8 /2	88	4.3			115-2	8 4	10		
1.400	14 04	167 08		10	1000		88	42	J		070-	24	5		
1500	12 57	16915		10	1000	~	88	01.7			070- 4	24	U	170-	
1600	13 50	16922		10	1005	5.	81	92	4		070-1	8 4	21	19	
1700	13 4-1	169 21	5 N	10	1005	82	7/9	92	6		370-	C	had	130	
1800	13 34	169 38		10	100 h		79	92	Ġ.		173-	5 1/		170	
1900	13 23	169 4/5		10	100%		10	9.7			372	- L		1 1 1	168
2000	13 17	169 56,		10	1000		79	92	3		070	8 4		1.70	325
2100	13 11	17004	2/	14	1007		70	9 -			076-3	84	4	176	525
2200	13 05	170 13	SC!	10	1007		3 9	5	4		070- 2		-1		325
2300.	12 54	17021		10	1007			3			000	₽ &/			258
2400	12 55	170 28	U	10	1007	Fd	9	83	4		010-	X.			258

REMARKS:



REMARKS:

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE	C)	1965			~										
	4	*						THOS of	mr CIA7		TATTE	CTEV THEMID	LITIMD C	WIND D	SHIP COURSE/SPD.
TIME	IAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 50	17035	Sel	10	1007	80	76	87		beautiful and the second	070 - 1	84	3	210	9 28
0200	12 45	170 42	Set	10	1006	79	76	91	5	300000000000000000000000000000000000000	070-2	84	4	210	
0300	12 39	17050	BKN	10	1000	79	76	91	6		070-2	84	Wis-	92,20	
01+00	12 34	170 56.	BKN	10	1000	72	75	91	8		230 1	84		230	
0500	12 39	17104		0.1	100 6	77	74	87	3		230 - 1	. 4		340	
0600	12 25	171 05		10	1000	150	72	91	8		340-1	8 4		250	
0700	12 20	171 14		10	1006	· 7/	75	83	(,		340-1	.7.4	11 /	130	V
0800	12 16	171 20		7.0	130 0	79	76	91	6)	340-1	54	10	31,	221
0900	13 19	171 28		10	1008	79	76	11	(3		340-1	86	111		3/5
1000	12 31	171 34		10	100 2	79	76		6		346- 2				315
1100	12 58	171 40		10	10 23 post		77	91	6		340-2	-	1 1		3/5
1200	12 45	171 43		1.0	100 7		77	. 91	(3		340-2				315
1300	12 49	171 44		16	1006	7	17 6	88	4		020-2			030	045
1400	13 55	171 32		10	1016		7 1	88	4					076	043
1500	13 01	1713	\ <i>y</i>	10	1000	3	79	Ý Ý	4		32		U	030	04/5
1600	13 07	17/36	SCI	12	1006	8 3		8	2		2 5 9		12	3	045
1700	13 13	17/21	·		1000	83	79		2				12	196	<u> </u>
1800	13 17	171 17		13	006	79	75	C: 8	rest.		0		1.0	000	
1900	13 23	171-11		13	1000	78 v	75	71	14		(2/1-0)		h-		
2000	13 28.	171 37	rk	13	1006	76	73	9	6		9			,	
2100	13 36	170 =4		15	1007	74	•7		60		E.	1 1			
2200	13 41	170 54		15	1007	7-4	70	76	6		34 -		*	,	V
2300	13 44	1.70 46		15	1207		£9	9.	6		054- 2				01/2
2400	13 57	170 40	8	15	1007		49	(1)	16		05		Š		043

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

43.5

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE 10 34 1965

					X CT D	77777 77	דורו דורו	TINDA d	mt CIZT		T.IA TITE C	CEV HEWD	LITIND C	LITHD D	SHIP COURSE/SPD.
TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	1405	170 34	CLR	12	1000	78	4	87			050-2	8 4	3	020	045
0200	1410	170 28		10	1006	\$ 1	73	87			050-	7 61	8	020	A .
0300	14/2	170 24		10	1000	r 2 S	72	9 /			050-7	3 4	8	020	
0,100	14 30	170 18		10	1200	7 1	70	C; }			050- 5	3 4	8	020	
0500	14,28	170 10%		10	130 6	71	70	95			05000	4	A.	020	
0600	14,35	170 6%.		10	1 150	70	69	95			050	84	7	030	
0700	14,41	170 00	T T	10	100 0	700	69.	95	Account		050-2	54	8 -	020	V
0800	14, 48	14 53		10	100/	72	66	83	2		000_1	1 1	7	060	045
0900	14 -1	101 45		10	1008	73	67	92	2		006-1	84	7	060	047
1000	5 02	1161 39		10	10 10 000	77	-11	83	1		200-1	5 4	5	052	04/7
1100	15 0%	164 -=:		10	100		73	79			000-1	4	8	941	04/7
1.200	15 14	161		10	1001	, and the second	- 5	. 80	1		000-1	8 4	_ 6	045	315
1300	15 17	169		10	120 /	3	5	80			1-000	, "	6	045	3/5
1.400	15 16	169		10	100 6		n	80)		001-1		6	045	315
1500	15 20	169		10	1306	g" 4	4)	84	2		000-1		6	045	315
1600	15 18	169 44		10	13.6		77	9 /	2		000 _ /	5 4	6	041	2.25
1700	15 12	169		10	1300 6		77	91	2		0 4 4 7	3 /	6	045	A
1800	15,06	169 54		10	100	9 .	79	9)	2		. /	B ~		34	
1900	1458	170 61		10	100/		n 8	88	2		(- 1	= ~(,	Ů''	V
2000	1454	170 5		10	120/		2.5		0-3		(00-1	8 4	4		3,25
2100	12149	170 21.		13	40/		78	Ł.	2		1	84	6	225	232
2200	14,41	170 25		10	1.20 /	ì	*78	,	2				6	180	
2300.	14, 50	175 31	V	10	130 %		98				W 10 _ 1		(2	180	V
2400	14 39	170 46	567	10	1008		77	91	1 2		1015-1		5	:/)	132

REMARKS:

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE / 5

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100 /	14 25	1-10 55	504		1008	80	174	87	3		675-1	84	8	075	232
0200 /	14, 20	11103	1		1007	79	75	87	3		080-1	84	9	115	A
0300 /	4, 7,2	12/ //			1000	78	75	91	3		080-1	84	9	050	
01+00	4,10,	171 19			100 6	77	74	91	3	/	080-1	84	9	050	
0500 /	ef it	1911 00			1006	76	73	91	3		050-1	84	9	050	
0600 /	3	191 37			1007	76 ~	73	51	3 -		080-1	25-	8 ~	050	
0700 /	3	171 -3			100 7	76	75	96	3		090-1	85	8	050	
0800 /	13 46	17/ -			100 8	79	75	87	2		080-1	84	8	050	
0900	12 46	172 06			100 8	80	77	91	2		080-1	1 15	8	050	
1000	16:04	172 15		W	100 8	84	76	87			680 - 2	85	8	050	
1100	3 27	172 23		10	100 8	88	76	87	3		010.5	55	Y	050	V
1.200	12	172 32			100 6	84	76	. 87	3		340-2	85	ÿ	3 4/0	232
1300	13 28	172 40			1006	82	77	92	5		30/0-2	8. 8	9	3110	315
1.400	13 = 7	172 46			100 6	8/	76	87	3		340-2	8 5	9	340	
1500	13 39	172 50			100 6	79	74	9/	1		340.5	3 3	7	340	
1600	13 40	172 53			100 6	79	76	9/	4		340-2	85	5	340	Y
1700	13 25 34	173-01			1006	79	76	9,	4		340-2	8.2	5	340	3/5
1800	14 00	172 55			VD0 6	79 /	76	91	4		340.2	8. 0		000	04/5
1900	14 09.	17/2 44	V		100 6	79	76	91	4		340.7	-28	2 4	000	<u> </u>
2000	188 14	172 44	Set-		100 6	79	76	91-	U		7410-2	85	24	200	
2100	10 32	1 38	Blen		100 9	78	75	91	6		740 2	8.5	15	000	
2200	1. 29	1 . 33	Blew		100 9	78	75	9/	G		3213 - 2		12	000	
2300	35	27	BICN	W	1009	75	74	96	6		7:10"2		12	000	W
2400	10 42	132 21	50+		1100 9	82	77	88	0		340-7	84	8	060	04/5
	REMAI	RKS:													

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE 12 Sen. 1965

			,			»										
TIME	LAT	N	LONG W	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	14	49	1/12-15	CLR	10	100%	82	78	88	2	No.	340-2	84	10.	045	045
0200	14	55	172-10		10	100;	81	77	8 ?	2	6.1	350 - 2	84	10	045	1
0300	15	02	172 04		10	100	81	77	88	2		350-2	84:	15.	039	
0,100	15	09	171.58		10	1008	81	77	88	2		350- 2	84	15	039	
0500	15	16	171 52		10	1008	80	775	87	2		350- 2	84	15	039	
0600	15	22	171 47	White here as	10	000	81-	75	84	3		350- 2	84-	15 .	039	V
0700	15	30	171 40		10	1009	81	75	84	3		350- 2	84	15	039	045,
0800	15	38	171 34		10	1010	80	77	91	3	10000	045-1	84	7	045	04/8
0900	13	44	17/ 27		10	N. C	78	72	9	3		045-1	87	9	045	
1000	15	50	17/ 20		10		80	77	ci I	3		045-1	84	8	045	
1100	15	.53	171 15		10	1210	85	78	88	3		042-1	84	<u> </u>	045	
1.200	15		171 10		10	1008	83	78	. 84	3		645- 1	87	8	045	
1300	16	05	171 02	Ψ	10	1008	76	12	87	3		045-1	84	6	040	\(\lambda_1\)
1.400	16	11	170 53	ļ.	10	100	76	72	87	2		045-1	84	6	040	¥ .
1500	16	17	170 2/5	·	10	100	76	72	87	2		045-1	84	6	0110	0-18
1600	16	27	170 55		10	1000	į il.	80	88	2		045-1	84	7	040	3/2
1700	1/6	28	171 03		10	1926	1 4	80	88	2		045-1	84	7	040	
1800	16	33	171 08	3	10	1001	81 6	78	91	20		1045-1	84 -	7 :	0:13	• 1
1900	16	38	101 15		10	1009	80	74	83	2	/	045=1	54	7	046	- 1 B
2000	16	34	171 25		10	1311	77	73	87-)		1)60-1	54	6	045	525
2100	16	33	17/ 29		10	1010	75	68	78	1		(1)10 -1	84	4	045	
2200	16	76	171 33		10	1016	73	66	78			100 -1	84	7	645	
2300	16	- F C -	171. 4	SCT	10	1011	713	67	82	3		0-11	94	8	050	V
2400	16	12~	171 5	2 1	10	101	174	68	8.0	4		100 -1	8 -1	8	050	135
	1	REMARI	KS:													

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE 13 January 1965

IME	LAT		LONG		PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/
.00	16	CA	171	55	BKN	10	1010	76	73	9!	8		000-1	8.4	4	050	225
200	13	- 7	172	07		1	Vodo	75	74	96	7		000-1	8 4	4	340	
300	15	40,	172	15.0			1010	76	73	91	(pr		006-1	8 11	4	240	1
00	15	42	172	200			1016	74	71	G I	7		1 000	84	4	340	
00	15	.35	172	20			1000	74	1//	9/	7		000-1	84	4	340	
00	15	24	172	27	V		10,60	74	7!	91	7		000-1	84	4	340	
00	15	19 7	172	4/4	STC		10/0	764	93	91	2		250-1	84-	2	225-	
00	15	071	1-,2	53			1010	77	74	91	3		250-1	54	4	276	
00	13	63	173	00			1011	50	77	91	LI	1	230-2	84	2	5 6 6	
00	15	03	173	08			1011	5.2	79	9.2	4		230-2	8.5		000	
00	11 4	59	173	15			1011	85	8 2	9.2	4		230-2	8.5	1	000	
00	14	5007	173	20		1	1010	8 5	82	્. ્	4			85	2	275	
00	14	5-2	173	29			1009	7	8'4	88	4/			85	47)	230	W
00	14	46	173	37			1000	٥	88	92	64			F 5	-	185	
00	14	isto.	173	4 %			100%	88	85	92	w/			3 5	_2	190	25
00	14	36	173	5 min			1008	01.	8 3	92	4)	050-2	85	2	190	315
00	14	41	174	08			1007		83	ŶŖ Ź	4		050 >	5 5	2	190	1
00	14	45	174	17			1008	V	83	9.3	4	,	650-3	83 5	6 4	146	
00	14	7	174	25			100		83	92	5		050 - 7	1:5	p	111:	V
00	15	01	174	30			100	78	194	877	5		050 - 3		4-/	170	315
00	15	0)	174	24			100	77	73	87	4		210-3) J	5	000	045
00	15	12	174	20			1020	77	73	8 7	4	1	230 - 3	8 4	6	017	0 3</td
00	15	18	174	14		10	1004	77	73	877	4		233 - 3	.5 4	6	017	043
00	15	134	174	08		10	1009	73	69	86	4		000 - 3	84	Danna	050	043

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE 147 9 1 5

TIME	IAT		LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	15	30	173 59	SCT	10	1009	70	69	95	4		000.1	84	4	060	043
0200	15	37	173 52		10	1009	70	69	95	4		020-2	84	7	060	17
0300	15	efi	173 46		10	1009	68	67	95	4		020- 2	84	8	053	
01+00	15	-17	173 39		10	1004	69	66	90	4		030-1	84	5	065	
0500	13	43	173 31		10	1009	69	66	90	4		030-1	84	5	025	
0600	15	53	173 24		10	1004	72	69	91	1		035-1	84	4	035-	\/
0700	16	25	173 15		10	1000	74-	68	82	4		035-1	84	4	035	043
0800	16	10	173 08		10	1010	7 4	-7 {	91	3		140- 2	84	4	025	045
0900	16	18	173 00		10	1010	76	73	9.1	3		146- 2	84	4	035	٨
1000	16	24	172 52		r	1010	- 1	114	87	· ·		140- 2	84	4	035	
1100	16	33	172 45		10	1010	1	73	83	2		140-2	84	5	030	1
1.200	16	39	172 38		f th	131	75	714	. 87	2		140-2	84	4	035	V
1300	16	definy	172 30		10	1016	70	74	87	2		140 2	84	4	035	045
1.400	16	50	172 20		10	1024	80	76		2/	/ .	280- 7	84	4	تد شد ت	0.90
1500	9	5	172 09		1	1004	80	76	8 .	41		283.2	84	4	ى ئە ن	A
1600		56	17/ 56		10	1004	· ·	76	27	4		280-2	8 4	4	020	
1700	./6.	50	171 47		/	1004	0	27	1	4		280	84	4	020	
1800	16	50 Pm	1171 37		19	8 May 4	100	77	91	4.6		580 0	50	4 0	020	
1900	16	e 1	171 37.		10	1504	,50	76	87	4		200-2	64	4	220	
2000	16	56	171 22	CKN	8	1,000	8 8	81	88	6		010.1	r 4	5	0/1	V
2100	16	**	171 16	1	1	100-1	47 7	75	87	8		010-1	<i>6</i> 4	5	, 1 i	090
2200	16	- 6	171 10			100	7 \$	70	86	6		010-1	2/	3	010.	090
2300.	100	50	17/ 63		14	1001	714	70	86	6		630.1	3 4	5	035	090
2400	16	٠٥	170 50		10	1010	74	70	96	is in		030-1	54	5	045	090
		REMARK	KS:													

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 5	170 49	BKN	10	100	74	70	86	9			84	5	060	050
0200	16 5	100		10	100	74	70	86	9		total and	8.4	5	040	A
0300		0 /70 33		10	100	74	70	86	9			8 4	5	060) '
01+00	16	COLUMN TO THE REAL PROPERTY AND THE PARTY OF	, p. 1	10	1009	78	72	83	9	/	270 -1	34	4	050	
0500	16	The second secon		10	1004	79	73	83	9		270-1	84	4.	020	
0600	16	0 170 07		10	1004	77	73	87	8		270-1	8 4	4.	0.21	
0700	14 €	and the second		10	100	77-	73	39	8		1270-1	4	4 -	000-	
0800	16 3	3 /69 5-1		10	1001	78	74	87	8		1.70-1	54	/	095	V
0900	?	169		10	004	80	76	87	7		1270 -1	84	7	3.35	090
1000	7 4	169 44		10	1000	51	77	88	7		270-1	84	8	325	3.80
1100	7	169	4	10	1219	53	79	88	8		270-2	7.4	8	211	100
1200	16 5.	169 47	50+	10	1301	84	80	. 88	7		070-1	3 4	7	070	. 010
1300	16 5	3 169 34	1	10	1007	85	80	84	7)	070-1	84		570	065
1400	16 5	- 169 30		10	130%	8-3	78	92	7		1070-1	. 4	4	070	069
1500	16 5	7 169 22		10	100	8 4	6	91	6		070-1	84	5	Ü V-	069
1600	1700	169 13		10	100/	1	77	-91	4		1070-1	8 4	5	070	069
1700	17 03	169 63		10	100		78	88	4		070-1	84	5	070	1
1800	17 04	168 54		10	100%	81	77	27	4.		070-1	St. of	1 5	ហ្វ	
1900	17 07	168 45		10	1208	79-	- 10	8 = 9	4		070-1	89	5	J I	
2000	17 00	168 38	3	10	1008	79	75	87	4		070-1	84	5	70	
2100	17 /3	168 30		10	1008	79.	75	87	4		070-1	F 4	5	070	
2200	17 10	168 21		10	1000	-79	75	87	4)	070 - 1	1 1	5	070	
2300	17 14	1 0		10	100 0	19	75	87	4	5	10-1	54	5	W 7 C	
2400	17 2	1 168 00		10	1009	77	73	8.7	1 4		.070 -1	96	5		1049

REMARKS:

outetons?

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE 16 January 1965

REMARKS:

SIP DRYB SEA TEMP WIND S WIND D SHIP COURSE/SPD. HUM % TL SKY OPA SKY WAVES DRY B DEW PT PRES WEA SLP VIS LONG TIME LAT .5 060 -1 SCT 060 -1 7/ 060-1 000-1 07+00 BKN 060-1 9) 060 -1 7.5 10.9 060 -1 73-4. 060 -1 0800 18 02 060 -1 18 11 000 -1 V 安安 84 1200 /8 /5 260 -1 1300 18 17 060 -1 10: 7 1.400 18 18 060 -1 060 -1 1600 18 30 060 -1 SCT 18 21 060 -2 1800 /8 Lo Le 060 -2 000 -1 CIR 1 6 62-090 -1 164, -7 7 000 - 2 16 33 164, 21 6 4 111 (000 -2 2300.18 37 164, 000 -2 000 -2 V

SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

TIME LAT LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
ONALGE 100 18 48 163 3	-9 SCT	10	1010	1763	72	87	3	1	000 -)	83	3	357	065
TIME 50000 10 110 1/13 =	4		1011	76 4	70	82	3		1001-2	83	3		
0200 10 = 1 1/63 5	2		100/	10/10 2	73	91	*3	(000 - 2	83	3		
01+00 18 57 163 4			1017	762	73	91	3	1	000 - 2	83	3		
0500 19 01 163 3	2		1000	76 2	73	91	3	1	000-2	84	3		
0600 19 06 163 5			1000	7612	73	91	3		000 - 2	83	3		
0700 19 10 163 1			1001	772	74	91	3	1	000 - 2	83	3-	V	
0800 19 13 163 06			1010	75 2	72	91	5		2 - 080	83	3	020	V
0900 19 15 162 5	7 BRN		1	76 4	70	82	7		050 - 2	8 3	4	070	070
1000 19 16 162 50			rold	773	73	87	7	1	070 - 2	83	5	090	
1100 14 8 162 4			1011	7772	74	91	7		676 - 2	83	5	070	
1200 19 20 162 3.	3			773	74	9.1	7		070 - 2	83	4		
1300 19 22 162 2	4		4 /	177 -	74	91	7)	070 - 2	83	6		
1400 19 24 162 16				78 3	74	87	7	/	070-2	83	6		
1500 19 27 162 0	7		1010	2 36	75	St. American	7		070 - 2	8	10		
1600 19 30 161 58			100	79 4	73	83	after .		076 - 2	3	10		
1700 14 32 16/ = 0			100	79 4	73	83	8	1	076.3	83	8		
1800 19 25 161 42			0/-	78 4	72	8.3	8.		670 - 3	83	8		
1900 M 28 /6/ 1	THE PARTY OF THE P		10	79 4	73	83	\$		070 - 3	83	8		
2000 19 40 161 15			10	79 4	73	83	8		530-3	83	8	~	V
2100 19 45 16/16			10	79 4	73	8-3	8		070-3	8.5	, 0	043	067
2200 14 49 /6/ 04	2	V	1911	79 4	73	83	8		070-3	8.5	10	045	
		8	101	-3 0 4	73	83	8	5	070-3	82	10	350	
2300 4 55 160 56 2400 19 58 150 45		10	1/1/	38. 5	71	79	7		075 -2	83	/0	075	

REMARKS:

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 4 JANUARY

TIME	IAT	N	LONG	w	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY_	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/S	SPD.
				/		1				1							1	
0100	1		1						X		1		1	1	/	1		
0200			<u> </u>							-				//		/		/
0300								/					-	-			/	
0)+00		/				-			-	-	-		-	-	-	1		/
0500						/	/				-	-			-			-
CONTRACTOR AND STREET,		-/			/						-		-		1/			/
0700		_/							1		1/	-	-	-	1	-	/	
0800		/																
0900			ob ⁴			10		39		1				2	2	(AGO)		
1000					-75	10	10/2	7/	13	0 1			2000	0 7	1 2		3-67	
1100	of today	7 //	2		Sch	12	1013			8-1-	The state of the s		200			060	592	0
1200	71-8	4,02	and the same of th		54	10	1012-	8	76	57	5		50	0	2	060	209	0
1300		59.	158	08	Scope	(0)	1011		79	96	5		270	8/-	4	160	370	2
1.100		53	126 1	6	Sct	14	1009	80	75	96	65			31	6		570	
1)00		58.5		13	Sch	10	1008	50	75	96	5			8/_	6	5/3	34/7	
1600	00	35		7 9	SCL	10	1008	E	79	96	16.		5/0	d Co-	10	274	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
1700	20	52	158	The second section 2.	Sct	10	1008	80	79	96			2/0	8-1	San Contract of the Contract o	570		
	9.4	419	158 4		BICN	10	1069	78	75	San San	6		12/3	61	10	2796		
1900	50	47	158 3	Company of the last of the las	BIEN	10	1010	760	73	9/			250	£ m	5	190		
2000	4-2	45	159	01	SELEN	10	1019	78	***	2.2	7		mil 8-0	5-3	9	302		
2100	30	2/2	125		BIEN	10	10/0	78	75	8-9	107		2 7	83	1 were	. 312		
2200	30	38.5	159 =	-	Blen	10	1011	78	75	5-9			260	1 2	17	300		
2300		35		33	360	10	1011	76	75	59			200	8/	100	300		
2400		31		47	1 Elen	13	181	12	1 100	96	1 7		0 3 6	8/	12	36.3	547	
1		REMARK	S:	5 1				\										



SMITHSONIAN INSTITUTION DIVISION OF BIRDS AT SEA CLIMATOLOGICAL DATA

DATE 18 3 - 1965

TIME I	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD
0100 3	0 00	160 40	BKN	10	10/2	76	72	87	7		070-2	85	9	075	067
0200 20	04	160 30	SCT		1012	75	71	86	5			82	8	075	,
0300 20		160 25			1/0/2	75	71	86	4			82	8	075	
01+00 20	13	160 00			1012	74	71	8 9	4			81	8	075	V
0500 2/		16080			1013	74	71	89	Y			811	8	075	065
0600 50		154 52			111/5	74	71	89	4			81	8	075	
0700 20	7/5	154 15			122	74	71	89	4		V	81	8	075	
0800 - /	=19	15		13	1014	76	72	87	3		120 - 2	82	5	120	
0900 -	The same of the sa	-7		12	1013	77	73	87	3			82	5	120	069
1000		159 18		12	1015	77	73	8.1	3			82	5	120	067
1100	8	1000 100		12	10/9	80	76	87	3		V	82	S	120	067
1.200	•	1-8 00		15	101 5	81	77	88	3		300 -4	83	7	165	072
1300	1	158 49		15	101-4	83	78	84	3		. 1	83	7	145	675
1.400 2	55	13		15	11/5	83	79	88	3) .		83	7	145	
1500 80	50	7 2 4		15	1012	84	80	88	3	5	V	8 2.	7	165	V
1600 21	-00	15 15		10	3/1-1	U	79	8 8	4	j.	60	82	6	120	090
	-00	158 55	-(10	1016	Application Probability of Application 20			4	1 > 1	-	5-55-	C	080	03/
1800 5	1 12	158 02													
1900 4/	15	15757							,						
2000															
2100															
2200															
2300															
2400															
Compression of the State of the	REMAI	RKS:	-many panggan dalam (g. mangan VII agang) dang galipatan kalindahan (galiban dipelahan). Migaliban dalam dalam												

